

**ANNOTATED BIBLIOGRAPHY  
OF STUDIES AND RESEARCH  
ON INTERNATIONAL DRUG CONSUMPTION  
AND INTERNATIONAL DRUG LAWS**

*Submitted to:*

**Office of National Drug Control Policy  
Executive Office of the President  
750 17th Street, N.W.  
Washington, DC 20500**

*Submitted by:*

**CSR, Incorporated  
Suite 300  
1400 Eye Street, N.W.  
Washington, DC 20005**

**March 16, 1993**

# **Annotated Bibliography of Studies and Research on International Drug Consumption and International Drug Laws**

This annotated bibliography contains documents serving as primary sources of international data for the analyses of selected country drug laws; consumption data for heroin, cocaine, and marijuana; and international data collection methodologies.

The entries have been grouped into the following categories for easy reference:

- Congressional Hearings
- General Accounting Office Reports
- Consumption Studies
- Pompidou Group Studies
- Proceedings of the Community Epidemiology Work Group
- Laws and Regulations Promulgated To Give Effect to the Provisions of the International Treaties on Narcotic Drugs and Psychotropic Substances
- Background Materials on Drug Laws in Foreign Countries
- Background Materials Relevant to the United Nations.

## ***Congressional Hearings***

The reports listed below are proceedings of hearings before the U.S. Legislature to discuss issues relating to worldwide drug consumption and foreign illicit drug laws.

*Andean Drug Strategy: Hearing Before the Subcommittee on Western Hemisphere Affairs of the Committee on Foreign Affairs.* House of Representatives, One Hundred Second Congress, First Session, February 26, 1991. Washington, DC: U.S. Government Printing Office, 1991.

This report considers 1991-92 financial assistance to Latin America and the Caribbean. Questions were raised about the drug strategy and the goals of the Andean initiative.

*Andean Strategy: Hearing Before the Select Subcommittee on Narcotics, Abuse and Control.* House of Representatives, One Hundred Second Congress, First Session, June 11, 1991. Washington, DC: U.S. Government Printing Office, 1991.

This report describes a strategy for controlling the narcotics problem with the Andean countries—Bolivia, Colombia, and Peru—in the years following the Andean Trade Preferences Act, which was designed to control the cultivation, production, and trafficking of drugs in that area.

*Asia, the Middle East, and Africa: Hearing Before the Committee on Foreign Affairs.* House of Representatives, One Hundredth Congress, Second Session, March 15, 1988. Washington, DC: U.S. Government Printing Office, 1988.

Brief summaries of drug production and trafficking in major countries of the world are presented. The report also lists countries with which the United States has extradition treaties.

*Asian Heroin Production and Trafficking: Hearing Before the Select Committee on Narcotics Abuse, and Control.* House of Representatives, One Hundred First Congress, First Session, August 1, 1989. Washington, DC: U.S. Government Printing Office, 1990.

This report outlines and updates eradication and interdiction efforts primarily in drug-producing countries such as Afghanistan, Burma, China, Hong Kong, India, Iran, Laos, Malaysia, Pakistan, Singapore, and Thailand. Charts are included showing drug production levels for each country and U.S. military assistance for each country.

*Bureau of Justice Assistance Discretionary Drug Treatment Programs: The Great Disappearing Act: Thirtieth Report by the Committee on Government Operations.* House Report 101-983. One Hundred First Congress, Second Session. Union Calendar No. 576. Washington, DC: U.S. Government Printing Office, 1990.

This report covers the following topics: Federal treatment initiatives, treatment in the criminal justice setting, the U.S. Department of Health and Human Services and treatment programs in the criminal justice system, Bureau of Justice Assistance claims that treatment programs have been increased, and Office of Justice Programs interference in treatment initiatives.

*Compliance by the Executive Branch with Legislative Requirements and the Future of the Andean Initiative: Hearing Before the Committee on Foreign Affairs.* House of Representatives, One Hundred First Congress, Second Session, October 10, 1990. Washington, DC: U.S. Government Printing Office, 1991.

This report describes proceedings from a task force meeting held as a year-end review of the Andean Initiative status. Subjects covered include U.S. compliance with past legislative provisions, U.S. and host-country compliance with the Cartagena agreement and performance criteria, and the future of the Initiative.

*Drugs and Latin America: Economic and Political Impact and U.S. Policy Options.* Proceedings of a seminar held by the Congressional Research Service, April 26, 1989. Report of the Select Committee on Narcotics Abuse and Control, One Hundred First Congress, First Session. Washington, DC: U.S. Government Printing Office, 1989.

This report describes a seminar on the political and economic impacts of drug production and trafficking in Latin America. In order to assist the Committee in forming an effective antinarcotics policy in Latin America, the seminar addressed the economical, political, drug production, and drug trafficking situations and their interrelationships.

*The Future of Columbian Narcotics Control Efforts and the Andean Initiative: Hearing Before the Committee on Foreign Affairs.* House of Representatives, One Hundred Second Congress, First Session, July 10, 1991. Washington, DC: U.S. Government Printing Office, 1991.

This report discusses the recent developments in the Andean nations— Bolivia, Colombia, and Peru—and assesses the impact of these developments on the Andean Initiative. These developments include the ban on extraditions to the United States in Colombia, Pablo Escobar and the Medellin Cartel, the Cali Cartel, corrupt officials in Bolivia, and a standstill in Peru.

*European Integration, the United States, and Narcotics Control: Rhetoric and Reality: Report of a Staff Study Mission to Great Britain, Italy, Portugal, Spain, and Kenya, January 8-26, 1990, to the Committee on Foreign Affairs.* House of Representatives, One Hundred First Congress, Twenty-Fourth Session, March 1990. Washington, DC: U.S. Government Printing Office, 1990.

This report outlines the steps that the United States must take if it is to have an impact on the drug trade from and within the European Community (EC). These steps include promoting the Andean initiative, becoming better informed of EC enforcement issues, increasing efforts to track illicit arms flow, and increasing U.S. intelligence activities. The report also details problems which are specific to Great Britain, Italy, Portugal, and Spain.

*Heroin Control Strategy: Hearing Before the Select Committee on Narcotics Abuse and Control.* House of Representatives, One Hundred Second Congress, First Session, May 9, 1991. Washington, DC: U.S. Government Printing Office, 1991.

This report describes various means by which the U.S. Government has attempted to control the flow of heroin into the United States. Charts are included showing the purity of heroin types from Southeast and Southwest Asia and Mexico.

*International Narcotics: The Emerging Heroin Threat in the United States: Proceedings of a Seminar Held by the Congressional Research Service, January 30, 1991.* House of Representatives, One Hundred Second Congress, First Session. Washington, DC: U.S. Government Printing Office, 1991.

This report discusses the increasing concern in the drug community that heroin is growing in popularity. Recent reports indicate that the availability of heroin has increased, which raises questions about the possibility of a new heroin threat and whether plans are in place to combat the potential problem.

*Narcotics Control Efforts in Southeast Asia. Business as Usual: Report of a Staff Study Mission to Cincpac, the Philippines, Singapore, Thailand, Laos, Hong Kong, and the People's Republic of China, November 2-26, 1990, to the Committee on Foreign Affairs.* U.S. House of Representatives, One Hundred First Congress, Second Session, February, 1991. Washington, DC: U.S. Government Printing Office, 1991.

This report assesses a broad range of narcotics issues including production, processing, trafficking, law enforcement, money laundering, U.S. assistance, and bilateral cooperation in China, Hong Kong, Laos, the Philippines, Singapore, and Thailand.

*Review of the President's Narcotics Control Legislative Request: Should Certification be Repealed? Hearing Before the Committee on Foreign Affairs.* House of Representatives, One Hundred Second Congress, First Session, May 2, 1991. Washington, DC: U.S. Government Printing Office, 1991.

This report discusses President Bush's request concerning narcotics control legislation and specifically the repeal of the certification requirement for countries receiving aid from the United States.

*Review of the 1992 International Narcotics Control Strategy Report: Hearings Before the Committee on Foreign Affairs and the Subcommittee on Western Hemisphere Affairs.* House of Representatives, One Hundred Second Congress, Second Session, March 3, 4, 11 and 12, 1992. Washington, DC: U.S. Government Printing Office, 1992.

This report contains a review of the 1992 International Narcotics Control Strategy Report including witness statement and testimony, charts, country summaries, and summarized data. Testimonies and statements presented to the Committee on Foreign Affairs provide a summary discussion of the Report.

*The San Antonio Summit and the Andean Strategy: Hearing Before the Select Committee on Narcotics Abuse and Control.* House of Representatives, One Hundred Second Congress, Second Session, March 26, 1992. Washington, DC: U.S. Government Printing Office, 1992.

This report examines the issues addressed at the San Antonio Summit and the Andean Strategy hearing at which the participants—Bolivia, Colombia, Ecuador, Mexico, Peru, the United States, and Venezuela—agreed on a joint declaration to implement specific steps. Substantial statements on regional information sharing, control of air space, chemical control, and other issues were included in the San Antonio Declaration issued at the close of the summit.

*The Situation in Peru and the Future of the War on Drugs: Joint Hearing Before the Subcommittee on Western Hemisphere Affairs and Task Force on International Narcotics Control of the Committee on Foreign Affairs.* House of Representatives, One Hundred Second Congress, Second Session, May 7, 1992. Washington, DC: U.S. Government Printing Office, 1992.

This report responds generally to the dissolution of a modern State in Peru and more specifically to the aircraft shooting incident in international waters that resulted in the death of Americans.

*Study Mission to Korea, Hong Kong, Thailand, Laos, and Hawaii (January 3-14, 1990): Report of the Select Committee on Narcotics Abuse and Control.* One Hundred First Congress, Second Session. Washington, DC: U.S. Government Printing Office, 1990.

This report examines nations in East Asia in January of 1990 that produce and traffic opium, heroin, marijuana, and methamphetamine. The Committee also conducted a hearing on the trafficking and abuse of methamphetamine in Hawaii and on other drug enforcement issues in the State of Honolulu.

*Study Mission to Panama and Colombia (January 6-9, 1991): Report of the Select Committee on Narcotics Abuse and Control.* One Hundred Second Congress, First Session. Washington, DC: U.S. Government Printing Office, 1991.

This report describes the outcome of a study mission in Panama City, Panama, and Cartagena, Colombia. The mission was conducted to assess drug abuse control efforts in the major cocaine producing and trafficking nations. Recommendations based on these assessments are made.

*Study Mission to Syria, Pakistan, Israel, and Italy, August 3-13, 1991: Report of the Select Committee on Narcotics Abuse and Control.* One Hundred Second Congress, First Session. Washington, DC: U.S. Government Printing Office, 1992.

This reports details the study mission to Israel, Italy, Pakistan, and Syria. The objective of the mission was to examine drug trafficking and drug abuse trends in the Mideast/South Asia/Mediterranean areas, with a specific focus on opium production and heroin trafficking.

*The Threat of the Shining Path to Democracy in Peru: Hearings Before the Subcommittee on Western Hemisphere Affairs of the Committee on Foreign Affairs.* House of Representatives, One Hundred Second Congress, Second Session, March 11-12, 1992. Washington, DC: U.S. Government Printing Office, 1992.

This report addresses the question of the international community's responsibility when a terrorist movement with potential for genocide takes over the structure of a modern State, for example, the Shining Path in Peru.

### ***General Accounting Office Reports***

Some of the reports listed below deal with U.S. interdiction efforts in those foreign countries known to be illicit drug consumers, producers, or traffickers. Other reports listed below deal with U.S. Government efforts designed to halt the abuse of drugs within the United States.

***Drug Control: Anti-Drug Efforts in the Bahamas: Report to the Chairman, Committee on Foreign Affairs.*** House of Representatives. Washington, DC: U.S. General Accounting Office, March 1990.

This report discusses the extent, results, and limitations of U.S.-Bahamas drug interdiction operations; the status of other drug control activities, including treaties between the United States and the Bahamas; and the strategy, management, and planning of U.S. antidrug efforts to improve coordination among interdiction agencies.

***Drug Control: Enforcement Efforts in Burma Are Not Effective: Report to the Honorable Daniel P. Moynihan, U.S. Senate.*** Washington, DC: U.S. General Accounting Office, September 1989.

This report reviews the U.S.-supported antinarcotics program in Burma, focuses on factors that inhibited program effectiveness, and presents issues that the Congress should consider if the political climate in Burma improves and the Department of State proposes reinstating the program. The program was abandoned in September after the Burma Army violently suppressed antigovernment demonstrations. Burma produces more illicit opium than any other country in the world.

***Drug Control: How Drug-Consuming Nations Are Organized for the War on Drugs: Report to the Chairman, Permanent Subcommittee on Investigations, Committee on Governmental Affairs, U.S. Senate.*** Washington, DC: U.S. General Accounting Office, June 1990.

This report addresses the question of how European nations have organized their resources to fight drug trafficking. Specifically the report focuses on the worldwide drug abuse and narcotics trafficking problem and how the U.S. and European policies, perspectives, and approaches differ in the following areas: organization and infrastructure, law enforcement, demand reduction, and strategies for international narcotics control. The report reviews the antinarcotic activities of three European countries—Germany, Italy, and the United Kingdom—for comparison with the activities of the United States.

***Drug Control: U.S. Supported Efforts in Colombia and Bolivia: Report to the Congress.*** Washington, DC: U.S. General Accounting Office, November 1988.

This report investigates the effectiveness of assistance provided through the U.S. international narcotics control program and focuses on Colombia and Bolivia. The report's results conclude that although efforts are being made to combat narcotics

trafficking and production, there has been little improvement. Although crop eradication has been practiced extensively, the new crops being planted far exceed the amount being eradicated. The report advocates better crop eradication techniques and the strengthening of the judicial systems in both Colombia and Bolivia.

*Drug Testing: Action by Certain Agencies When Employees Test Positive for Illegal Drugs: Fact Sheet for the Chairman, Subcommittee on Treasury, Postal Service, and General Government, Committee on Appropriations, U.S. Senate.* Washington, DC: U.S. General Accounting Office, April 1990.

This report identifies the difference in employer actions when employees test positive for illegal drugs and determines the basis for these actions through an examination of the random drug-testing programs at the Department of the Army, the Department of Transportation, and the Drug Enforcement Administration.

*The Drug War: Counternarcotics Programs in Colombia and Peru. Testimony Before the Subcommittee on Terrorism, Narcotics and International Operations, Committee on Foreign Relations, U.S. Senate.* Statement of Joseph E. Kelley, Director, Security and International Relations Issues, National Security and International Affairs Division. Washington, DC: U.S. General Accounting Office, February 1992.

This report concludes that the United States is further along in implementing the Andean Strategy in Colombia than in Peru due to the Colombian government's commitment to combat drug trafficking. Peru must overcome serious difficulties in fighting the drug war before the strategy can be effective. In addition, the United States needs to strengthen its oversight in both countries to ensure that military and law enforcement aid is used efficiently, effectively, and as intended.

*The Drug War: Extent of Problems in Brazil, Ecuador, and Venezuela. Report to the Chairman, Permanent Subcommittee on Investigations, Committee on Governmental Affairs, U.S. Senate.* Washington, DC: U.S. General Accounting Office, June 1992.

This report states that there is a lack of information on the narcotic activities of Brazil, Ecuador, and Venezuela. The United States believes that trafficking, money laundering, coca growing, and cocaine production in these countries are increasing but are not yet significant compared with Colombia, Bolivia and Peru. Factors contributing to the difficulty of controlling narcotics activities in these countries include lack of effective coordination between host countries and the United States and host government corruption. However, bilateral and regional cooperation is beginning to develop.

*Drug War: Observations on Counternarcotics Aid to Colombia. Report to Congressional Requesters.* Washington, DC: U.S. General Accounting Office, September 1991.

This report finds that though the flexibility in using the counternarcotics aid allowed by the executive branch's Andean Drug Strategy is necessary, the management oversight of U.S. aid needed is not in place. Without such oversight, there is no assurance that the aid is being used effectively and as intended. U.S.

officials have not finalized plans for (1) designating how the aid should be used by military units, (2) monitoring how the military aid is used, and (3) evaluating the effectiveness of the aid in achieving counternarcotics objectives.

*The Drug War: Observations on Counternarcotics Programs in Colombia and Peru. Testimony Before the Legislation and National Security Subcommittee, Committee on Government Operations, House of Representatives.* Statement of Frank C. Conahan, Assistant Comptroller General, National Security and International Affairs Division. Washington, DC: U.S. General Accounting Office, October 1991.

This report asserts that U.S. aid in both of these countries is not being used as effectively as possible. Although Colombia appears to have made strides in combatting narcotics production and trafficking, Peru has serious obstacles to overcome before it can begin to fight the drug war effectively.

*The Drug War: U.S. Programs in Peru Face Serious Obstacles. Report to Congressional Requesters.* Washington, DC: U.S. General Accounting Office, October 1991.

This report examines the management and effectiveness of military and law enforcement counternarcotics programs in Peru as part of the U.S. Andean Strategy.

*Panama: Issues Relating to the U.S. Invasion: Fact Sheet for the Honorable Charles B. Rangel, House of Representatives.* U.S. General Accounting Office, April 1991.

This report verifies the legal basis under international law for the 1989 invasion of Panama by the United States. A report on the invasion was submitted by President Bush to the Congress and further justified the U.S. action as a lawful exercise of presidential authority under the U.S. Constitution. Furthermore, according to representatives from six Latin American countries, the U.S. invasion of Panama had little or no foreign policy implications for the United States in their respective regions.

*Restrictions on U.S. Aid to Bolivia for Crop Development Competing with U.S. Agricultural Exports and their Relationship to U.S. Anti-Drug Efforts.* U.S. General Accounting Office, June 1990.

This report assesses the U.S. program to assist Bolivian coca farmers in substituting legitimate crops for coca. Also discussed is the possible lifting of the restrictions that the United States usually places on aid to countries for crop development where that development would mean competition with U.S. agricultural exports.

*The War on Drugs: Narcotics Control Efforts in Panama: Report to the Chairman, Select Committee on Narcotics Abuse and Control.* House of Representatives. U.S. General Accounting Office, July 1991.

This report determines the extent to which narcotics-related activities are occurring in Panama and the status of U.S. and Panamanian efforts to reduce these activities.

### **Consumption Studies**

This section includes both quantitative studies of drug abuse in foreign countries and those documents that analyze the impact of illicit drug consumption in foreign countries.

Aguilar, Enrique Dr. *La Prevalencia del Consumo de Drogas en el Ecuador.* Presented at the Seminario Internacional "La Droga en America Latina." Quito, Ecuador: Fundacion Nuestros Jovenes, March 1990.

This report summarizes a 1988 national study on the prevalence of alcohol and other drug use in Ecuador carried out by the Ministry of Public Health and the Fundacion Nuestros Jovenes.

*Alcohol and Other Drugs Use by Canadian Youth: A National Alcohol and Other Drugs Survey (1989) Report: Technical Report.* Eliany, Marc; Wortley, Scot; Adlaf, Ed. Canada: Minister of Supply and Services Canada, 1991.

This report focuses on the consumption of alcohol and other drugs by youth and young adults aged 15-24, related behavior, and consequences. This is the third in a series of reports describing the results of Canada's National Alcohol and Other Drugs Survey (1989).

Bernard, Lennox. *Drug Use Survey Among Young People (Age 14 to 20) in Trinidad and Tobago.* St. Augustine: University of the West Indies, 1985.

This report presents findings concerning the population aged 14 to 20 in Trinidad and Tobago. A sample of 323 young people reflecting nationwide coverage was used for this study. The paper deals with the nature and extent of the drug abuse problem, the attitudes of Trinidad and Tobago youth toward drug abuse, and youth's perception of the drug abuse problem. Recommendations also are made.

*Bogota y el Consumo de Substancias Psicoactivas: un Estudio, una Solucion.* Bogota, Colombia: Plan Distrital de Prevencion de la Drogadiccion, 1989.

This report describes the results of a study of Bogota, Colombia, on the sociodemographic characteristics associated with the use and nonuse of psychoactive substances. Tables and graphs are included.

*Cocaine Today: Its Effects on the Individual and Society.* Proceedings of the International Seminar Organized by the United Nations Interregional Crime and Justice Research Institute (UNICRI). Edited by Francesco Bruno. UNICRI Publication no. 44. United Nations Interregional Crime and Justice Research Institute (UNICRI), 1991.

This report is a compilation of multidisciplinary findings from world-renowned researchers which was published as the proceedings of the International Seminar by the same title. Some topics covered include biological and clinical aspects of cocaine use, psychological and social aspects of cocaine use, the products and legal control of cocaine, cocaine and crime, and prevention and treatment.

*Drug Misuse in Britain: National Audit of Drug Misuse Statistics 1991.* London: Institute for the Study of Drug Dependence (ISDD), 1991.

This report presents the main elements of the drug abuse patterns in the United Kingdom as revealed by the latest studies and statistics. Then these data are integrated into an informed estimate of the dimensions of drug misuse in Britain. The report includes special sections on the known extent of cocaine and crack use in Britain and on the use of the drug "ecstasy."

*Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 countries of Latin America and the Caribbean.* In *Drug Abuse*, pp. 133-198, Scientific Publication, No. 522. Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization, 1990.

This report describes a meeting of the Advisory Group on the Epidemiology of Drug Abuse. Those attending undertook a precise and practical study of the magnitude of the drug abuse and drug trafficking problems and their consequences throughout the region for both individuals and society. Countries studied include Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Netherlands Antilles, Panama, Peru, Trinidad and Tobago, and Venezuela.

*Epidemiology of Drug Abuse in Mexico: A Comparative Overview of the United States of America.* Mexico: Centros de Integracion Juvenil, A.C., August 1992.

This report describes the features of drug dependence in Mexico which affect all regions regardless of social class, age group, or sex. Drug abuse is most prevalent among young people, particularly males from Baja California, Baja California Sur, Sonora, and Sinaloa. If alcohol and cigarettes are not taken into account, marijuana, inhalants, cocaine, and medical drugs are the main drugs of choice.

*Estudio Nacional Sobre Consumo de Alcohol y Drogas Ilicitas.* San Jose, Costa Rica: Instituto Sobre Alcoholismo y Farmacodependencia, Departamento de Investigacion, 1991.

This report details the results of a national study on the prevalence of alcohol and other drug use in Costa Rica. The relationship among particular drugs used is analyzed. The report contains tables and graphs.

*Estudio Sobre Salud Mental Y Habitros Toxicos en el Paraguay Noviembre 1991.* Asuncion, Paraguay: Comite Paraguay-Kansas, 1991.

The National Department of Mental Health of the Ministry of Public Health and Social Welfare, in coordination with the Paraguay-Kansas Committee, sponsored a poll to measure the use and abuse of psychoactive substances in the 10 most highly populated cities of Paraguay. Among the urban population, the poll targeted people aged 12 to 45. Data tables are included.

*Hong Kong Government Central Registry of Drug Abuse Narcotics Division Twenty-Eighth Report, January 1982 - June 1991.* Hong Kong: Cantral Registry of Drug Abuse, 1991.

Some of the major findings of this report include the following: 8 percent of the Hong Kong population over age 11 abuse drugs, heroin is the most popular drug of abuse, and the age distribution of first drug abuse has remained fairly stable over the past years.

*Health and Welfare Canada, National Alcohol and Other Drugs Survey 1989: Highlights Report.* Eliany, Marc; Giesbrecht, Norman; Nelson, Mike; Wellman, Barry; and Wortley, Scot (eds.). Ottawa, Canada: Minister of Supply and Services, 1990.

This survey was conducted by Statistics Canada in March 1989 on behalf of the Department of National Health and Welfare. Respondents were asked a broad range of questions about their use of alcohol and other drugs, including extent of use, patterns of use, and the circumstances and settings associated with use.

*Heroin Situation Assessment: A Working Paper Due for the Office of National Drug Control Policy.* BOTEK Analysis Corporation, January 10, 1992.

The balance of this report is comprised of two sections and two appendixes. The first section examines currently accessible data concerning heroin availability, use, and abuse. The second section discusses and analyzes what these data indicate about the possibility of a future heroin epidemic.

*Hong Kong Narcotics Report 1991.* Hong Kong Action Committee Against Narcotics. Hong Kong: Queensway Government Offices, Narcotics Division, 1991.

This is a complete report on all activities pertaining to narcotics in Hong Kong for 1991. Topics covered include a review of the year, policymaking and coordination, research, preventive education and publicity, control of supply, suppression of illicit trafficking, and treatment and rehabilitation.

Hser, Yih-Ing; Anglin, M. Douglas; Wickens, Thomas D.; Brecht, Mary-Lynn; and Homer, Jack. *Techniques for the Estimation of Illicit Drug-Use Prevalence: An Overview of Relevant Issues.* U.S. Department of Justice, Office of Justice Programs, National Institute of Justice, May 1992.

This report surveys the complexities of defining drug-use prevalence, obtaining reliable new data, and creating trustworthy models to generate prevalence

estimates from the data. The report shows that practical estimates of crime and drug abuse require careful development and thorough testing.

Jutkowitz, Joel M. *Guatemala Needs Assessment, April 1991*. Arlington, VA: Development Associates, Inc., April 1991.

This report proposes specific steps to be taken during the 12 months following publication of the report. These steps are to move Guatemala toward an effective national drug abuse prevention program.

Jutkowitz, Joel M.; Arellano, Rolando; Castro de la Mata, Ramiro; Davis, Peter B.; Elinson, Jack; Jeri, F. Raul; Shaycoft, Marion; and Timana, Juan. *Uso y Abuso de Drogas en el Peru: Una Investigacion Epidemiologica de Drogas en el Peru Urbano*. Monografias de Investigacion No. 1. Lima, Peru: Centro de Informacion y Educacion para la Prevencion del Abuso de Drogas, January 1989.

This report presents the results of a national study on alcohol and other drug (AOD) use and abuse among 12 to 45 year-olds in urban areas in Peru. Sociodemographic data are related to prevalence of AOD use. Tables and graphs are included.

Jutkowitz, Joel M.; Eu, Hongsook; Leavy, Matthew; and Pagan, Lillian. *Survey on Drug Prevalence and Attitudes in the Dominican Republic*. United States Agency for International Development, Bureau for Research and Development, Narcotic Awareness and Education Project, August 1992.

This report lays the foundation for future interventions to prevent use that would be appropriate in the Dominican Republic context. The study consists of two separate research efforts: (1) a national survey and (2) a focus group study. The survey covers the full range of psychoactive substances considered to be available in the Dominican Republic, for example, alcohol and tobacco, cocaine hydrochloride, and "crack." The survey is based on a probability sample of the country's urban population (municipalities over 20,000). The study took place from October, 1991, to April, 1992.

Jutkowitz, Joel M. and Day, Harry R. *Survey on Drug Prevalence and Attitudes in Urban Panama*. Panama: United States Agency for International Development, Narcotics Awareness and Education Project, April 1992.

This report presents findings on drug use and prevalence patterns in Panama and makes recommendations based on these observations.

Kirsch, Henry. *The Role of Applied Research in Public Awareness and Policy Development: The Case of Drug Use in Panama*. United States Agency for International Development Bureau for Research and Development, Narcotics Awareness and Education Project, June 1992.

This report concludes the following: Panama has the most serious cocaine use problem among Latin American/Caribbean countries, high levels of drug use exist

among male populations, drug use is heaviest in urban areas, drugs are attracting younger users, employment rates among male drug users is high, public awareness of the drug problem is high, and most people in Panama believe the family is the key to finding a solution.

Martinez, Patricia L. and Alfaro, Eduardo M. Informe Preliminar Sobre la Prevalencia del Consumo de Drogas en Costa Rica. *Revista Latinamericana Sobre Alcohol y Drogas* 1: 66-72, 1989.

This report summarizes the data and results from a national study on the prevalence of psychoactive and pharmacological drug use in Costa Rica. Data and results confirm that there is a drug problem in Costa Rica, although it is not at the epidemic levels of other countries. Tables and graphs are included.

Medina-Mora, M.E. and Marino, M.C. Epidemiological Review of the Drug Abuse Problem in Latin America. In: *Project on Hemispheric Cooperation for the Prevention of Drug Abuse and Traffic: Workshop II: Strategies for Demand Reduction, November 28-30, 1990*. San Diego, CA: Institute of the Americas and the Center for Iberian and Latin American Studies, 1990.

This report reviews the spectrum of drug problems facing Latin American countries and offers insight into the cultural variables of these populations which affect the incidence and prevalence of drug abuse problems.

Murrelle, Lenn; Escalona, Rodrigo; and Florenzano, Ramon. *Perfiles Epidemiologicos Nacionales sobre Consumo de Alcohol y Otras Drogas en America Latina 1989*. Chapel Hill, NC: University of North Carolina at Chapel Hill School of Medicine, Center for Alcohol Studies and Department of Psychiatry, 1989.

This report compiles and compares epidemiological information on the problems associated with alcohol and other drug use, abuse, and dependence in 13 Latin American countries: (1) Argentina, (2) Bolivia, (3) Brazil, (4) Chile, (5) Costa Rica, (6) Ecuador, (7) El Salvador, (8) Guatemala, (9) Honduras, (10) Mexico, (11) Panama, (12) Peru, and (13) Trinidad and Tobago. Data are included on production, industry structure, market regulations, consumption levels, health indicators, government policy, and prevention and treatment.

Miguez, Hugo and Pecci, Maria Cristina. *The Epidemiology of Drug and Alcohol Abuse in Paraguay*. Arlington, VA: Development Associates, Inc., 1991.

This report discusses the results of a poll that measured the use and abuse of psychoactive substances in the 10 most highly populated cities of Paraguay among the urban population aged 12 to 45. The poll revealed that official statistics on diseases requiring notification show a very low number of medical consultations for drug dependency, and no official data is available on alcohol and tobacco consumption. In addition, no data from national scope probability studies on the use of drugs in the general population exist, and the types of abuse and addiction are unknown.

*1991 Drug Abuse Data Collection.* Ilupeje, Lagos, Nigeria: National Drug Law Enforcement Agency, Drug Abuse Data Division Counselling Unit, 1991.

This report describes some of the achievements of the Drug Demand Reduction Unit in its efforts to generate and process drug-related data at the local and national levels in Nigeria. It is hoped that, as a pilot study, this document will be a prelude to national school and population drug surveys as soon as funding is made available.

*1992 Worldwide Survey of Substance Abuse and Health Behaviors Among Military Personnel.* Research Triangle Institute. Washington, DC: Assistant Secretary of Defense and the Department of Defense Coordinator for Drug Enforcement Policy and Support, December 1992.

This report provides comprehensive and detailed estimates of the prevalence of use of alcohol, drugs, and tobacco as well as the negative consequences of alcohol and drug abuse among active-duty military personnel. This survey is the fifth in a series of Worldwide Surveys conducted since 1980.

*Proyecto de Accion Subregional para Centroamerica, Panama y Republica Dominicana (CICAD-CIECC) sub Proyecto: Investigacion y Vigilancia Epidemiologica sobre el Alcohol y Otras Drogas.* Washington, DC: Commission Interamericana para el Control del Abuso de Drogas (CICAD), 1991.

This report documents the results of a feasibility study on implementing a type of alcohol and drug abuse warning system in Central America (i.e., Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, and Panama). The following are presented: general demographic and epidemiologic data for each country, prevalence of alcohol and other drug (AOD) use, government organizations responsible for various aspects of AOD policy (e.g., drug control, prevention, and treatment), emergency room reporting and instruments used, and information on treatment and detention centers for each of these countries.

Rezza, Giovanni; Dorrucchi, Maria; Filibeck, Umberto; and Serafin, Irinus. Estimating the Trend of the Epidemic of Drug Use in Italy, 1985-89. *British Journal of Addiction* 87:1643-1648, 1992.

This report estimates the extent and the trend of the drug use epidemic in Italy during the second half of the 1980's. Mortality and morbidity indicators showed an increase in both drug-related deaths and AIDS (acquired immune deficiency syndrome) cases reported in injecting drug users, particularly among older subjects. These findings suggest that both the demand and availability of treatment increased through the years 1985-89 and that the clinical consequences of drug-related behavior have become an important public health priority.

*Royal Canadian Mounted Police National Drug Intelligence Estimate 1991 with Trend Indicators Through 1993.* Minister of Supply and Services Canada, 1992.

This report presents a comprehensive, annual review of the origin and volume of drugs on the Canadian market; the modes of transport and trafficking routes, and the methods used to supply this market. Substances discussed include heroin, cocaine, chemical drugs, and cannabis. The flow of drug money associated with the illicit drug trade also is highlighted.

Soria, Paul Bonilla and Andrade, Pablo Andrade. *El Consumo de Drogas en el Ecuador: una Aproximacion Cuantitativa.* Quito, Ecuador: Ministerio de Salud Publica, Fundacion Nuestros Jovenes, January 1989.

This report details the final data and results of a 1988 national study—the most extensive study to date—on the prevalence of alcohol and other drug (AOD) use in Ecuador. Data include age of initial use, frequency of use, and attitudes towards AOD. The magnitude of the AOD problem in Ecuador also is discussed. Data tables are included.

*Statistical Report on Narcotics Control in Thailand 1989.* Office of the Narcotics Control Board, Office of the Prime Minister, 1989.

This report presents an analysis of the drug problem trends in Thailand. The drug abuse problem is so great that the Thai Government has mobilized many of the country's resources and manpower to combat the problem. The new program includes a legislative measure to confiscate financial assets derived from drug trafficking, to deal with conspirators, and to enforce compulsory rehabilitation of drug dependents.

Tullis, LaMond. *Handbook of Research on the Illicit Drug Traffic: Socioeconomic and Political Consequences.* Greenwood Press, New York, 1991.

This report surveys the social and economic consequences of the production and consumption of narcotic drugs. The first part of the book explores global patterns of production and consumption of cocaine, heroin, and cannabis; details positive and negative consequences of drug consumption and production; and notes policy measures that have been adopted or may be adopted in consuming and producing countries. The second half of the book contains an annotated bibliography of over 2,000 entries.

*Uniform Statistical System: Study of Health Statistics Standards (Provisional Document).* Second Technical Meeting for the Study of the Uniform Statistical System, September 8-11, 1992, Mexico. Organization of American States, Inter-American Drug Abuse Control Commission, 1992.

This project for the health area is the second phase of the Uniform Statistical System and is designed to gradually build up the data bases with some uniformity. When these databases are included in the Inter-American Data Bank they can then be grouped in a number of subject categories to facilitate further analysis.

Basic indicators will be developed first at the national level and then at the regional level.

Vamos, Peter and Corriveau, Paul J. *Drugs and Society to the Year 2000: Proceedings of the XIV World Conference of Therapeutic Communities, Montreal, Canada, September 22-27, 1991*. Ottawa, Canada: The Portage Program for Drug Dependencies Inc., 1992.

This 2-volume work contains over 300 studies, essays, and commentaries on the worldwide problem of drug abuse. Subjects discussed include international perspectives; drugs in the cities; impact of drugs on society, research, and public policy; addiction and the justice system; AIDS (acquired immune deficiency syndrome) and public health; drugs and the workplace; prevention and education; women and drugs; the family system and drugs; drugs and adolescents; the therapeutic community; and methadone maintenance.

### ***Pompidou Group Studies***

The Pompidou Group of the Council of Europe examines the problems of drug abuse and illicit drug trafficking from a multinational perspective. The following studies measure and describe drug abuse problems in various cities throughout the world.

Anta, Gregorio Barrio and Antonio, Josep Roca. *Proposal for the Development of the Non-Fatal Emergency Indicator for Problems Related with Drug Use in Light of the Spanish Experience (Provisional Document)*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), May 1991.

The objective of this document is to present a provisional proposal of the best method for implementing the nonfatal emergency indicator in accordance to the experience acquired in Spain. The proposal considers issues in the following areas: system coverage, monitored emergency services, selection criteria of incidents, types of drugs, and procedures of data collection.

Cohen, Mr. P. and Krom, Mrs. J. *Multi-City Study of Drug Misuse: 1990 Update of Data: Amsterdam City Report*. Strasbourg: Council of Europe, Directorate of Social and Economic Affairs, Pompidou Group, 1992.

This report reviews drug abuse through a series of charts that detail use by drug and by age group. Some of the charts include recorded cases of hepatitis B by age and source of infection, acute death after drug use in Amsterdam, the number of persons arrested for offenses against the Opium Law, the number of drug dependent persons entering prison and the total number of incoming prisoners per each prison per each year, the amount of drugs seized (in grams), and the prevalence of use of certain drugs in Amsterdam by age group and gender.

Dall, Elisa. *Multi-City Study of Drug Misuse in the Municipality of Copenhagen, 1980-1990*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), November 1991.

This report focuses on drug misuse in Copenhagen. In addition to discussing general drug policy and legislation, the report details demographic information and treatment strategies. The indicators used to measure drug misuse include first treatment demand, hospital admissions, methadone maintenance treatment, hepatitis B, AIDS (acquired immune deficiency syndrome), drug-related deaths, criminal offenses, imprisonments, seizure of illicit drugs, and price/purity of illicit drugs.

*Drug Abuse Situation in the Netherlands*. Paper presented at the First Pan-European Ministerial Conference on Illicit Drug Abuse Problems, Oslo, May 9-10, 1991. Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), 1991.

This report describes the drug situation in the Netherlands; the government structures responsible for drugs; national legislation; practical law enforcement; information, education, and prevention; treatment and rehabilitation; the role of voluntary organizations; and international cooperation.

Hartnoll, Richard. *Development of Treatment Reporting Systems and First Treatment Demand Indicator: Third Progress Report: Results of Census of Clients in Treatment and Progress on 1st Treatment Demand Reporting*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), October 1991.

This is the third progress report of a study being conducted by the Expert Epidemiology Group (multicity subgroup) concerning the development of treatment reporting systems and the first treatment demand indicator. The following 11 cities are involved: (1) Amsterdam, (2) Barcelona, (3) Copenhagen, (4) Dublin, (5) Geneva, (6) Lisbon, (7) London, (8) Paris, (9) Rome, (10) Stockholm, and (11) Zurich. The two main components of the study are (1) a census of clients in treatment during December 1990 and (2) the routine reporting of clients demanding treatment during the first 3 months of 1991. Particular importance is given in the second component to the subgroup of clients demanding treatment for the first time ever (first treatment demand indicator).

Hartnoll, Richard. *Drug Treatment Reporting Systems and the First Treatment Demand Indicator: Definitive Protocol*. (Draft: August 1992.) Pompidou Group: Expert Epidemiology Group, 1992.

This protocol is the result of collaborative pilot studies and development work carried out in 11 European cities between 1989 and 1992 under the auspices of the Expert Epidemiology Group of the Pompidou Group. The purpose of the protocol is to recommend a standard framework for the routine collecting and reporting of comparable core data on the profile and size of drug-using populations that contact treatment centers in different cities or countries.

Hartnoll, Richard; Perera, Janaka; and Gorman, Aileen. *The Drug Situation in Greater London*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), May 1992.

This report, part of the seven-city report, focuses on drug misuse in London. The report gives a description of London in terms of its history of drug misuse, drug policy, treatment programs, and control and monitoring systems. Indicators used to measure drug misuse include first treatment demand, hospital admissions, viral hepatitis, drug-related deaths, police arrests, imprisonments, seizures of illicit drugs, price/purity of illicit drugs, and AIDS (acquired immune deficiency syndrome).

Johnston, Lloyd D.; Driessen, M.H.M.; and Kokkevi, Anna. *Report of a Six Country Collaborative Project on Student Surveys of Drug Use*. Strasbourg: Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), 1991.

The Pompidou Expert Committee on Drug Epidemiology developed a standardized school survey instrument which could be tested across a broad set of different cultural settings (primarily within Western Europe) to determine the feasibility, reliability, validity, and general usefulness of the instrument within these populations. This report describes the nature of that undertaking and its outcomes in six of the eight participating countries.

Kontula, Osmo. *Report on Drug Misuse in Helsinki in 1990*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), September 1991.

This report which focuses on drug misuse in Helsinki, Finland, includes a description of the city with a discussion of general policy and demographic information and a survey on drug misuse. The indicators used to measure the extent of drug misuse include first treatment demand, hospital admissions, drug-related deaths, seizures of illicit drugs, imprisonment, and price/purity of illicit drugs.

Lange, K.J. *Report on Drug Misuse in Hamburg Updated to 1990*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), October 1991.

This report focuses on drug misuse in Hamburg, Federal Republic of Germany, including a description of the city, a history of drug misuse, a discussion of general policy and legislation, and an explanation of control and monitoring systems as well as treatment programs. Indicators used to measure the extent of drug misuse consist of first treatment demand, laying claim to counseling facilities, hospital admissions, detoxification clinics, emergency services, viral hepatitis, drug-related deaths, police arrests, imprisonments, seizures of illicit drugs, price/purity of illicit drugs, and HIV (human immunodeficiency virus)-seroprevalence among drug users.

Macchia, T.; Dell'Utri, A.; Mancinelli, R.; and Avico, U. *Multi-City Study: Rome*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), November 1991.

This report focuses on drug misuse in Rome, Italy. A history of drug misuse in the city is given and general policy and legislation are discussed. Control systems and treatment programs are described. Some indicators which the report uses to measure drug use include viral hepatitis, drug-related deaths, imprisonment for trafficking and dealing, the number of drug addicts in prison, and seizures of illicit drugs.

*Multi-City Study of Drug Misuse in Amsterdam, Dublin, Hamburg, London, Paris, Rome, Stockholm, Final Report, Section 2: Technical Report on Indicators of Drug Misuse in the Seven Cities and Recommendations for Future Monitoring*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), 1987.

This report examines the benefits, the drawbacks, and the comparability of indicators that are used to assess and monitor drug misuse; discusses the possibility of developing a more integrated framework of communication that would allow for improved and more comparable assessment within Europe; and makes recommendations for improving drug misuse monitoring in the future.

O'Hare, Mrs. A. *Multi-City Study of Drug Misuse: 1990 Update of Data: Dublin City Report*. Strasbourg: Council of Europe, Directorate of Social and Economic Affairs, Pompidou Group, 1992.

This report focuses on the Greater Dublin area and updates the 1987 findings. A history of drug misuse in Dublin is given; general drug policy and legislation are discussed; and control systems, monitoring systems, and treatment programs are described. Some indicators which the report uses to measure drug use include hospital admissions, viral hepatitis, drug-related deaths, police arrests, imprisonment, seizures of illicit drugs, and price/purity of illicit drugs.

Olsson, Borje. *Report on Drug Misuse in Stockholm Updated to 1990*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), June 1991.

This report updates the 1987 information on drug misuse in Stockholm, Sweden. Demographic information on the city and information on drug policy are given and drug survey results are shown. Indicators used to measure the extent of drug misuse include hospital admissions, hospital discharges, drug abusers in contact with the social services, viral hepatitis, drug-related deaths, police arrests, imprisonment, seizures of illicit drugs, and price/purity of illicit drugs.

Roca, Josep and Brugal, Maria Teresa. *Drug Indicators in Barcelona 1988-1990: Barcelona Information System on Drug Addiction, April 1991*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), October 1991.

This report focuses on drug misuse in Barcelona, Spain, including a history of drug misuse, a discussion of general policy and legislation, demographic information, surveys of drug misuse, and a description of control and monitoring systems and treatment programs. Indicators used to measure the extent of drug misuse include first treatment demand, drug-related deaths, and seizures of illicit drugs.

Rodrigues, Luisa Machado and Antunes, Carla. *Update on the Drug Situation in Great Lisbon 1988-1990 (Revised Form)*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), May 1992.

This report focuses on drug misuse in Lisbon, Portugal, including a description of the city, a history of drug misuse, a discussion of general policy and legislation, and an explanation of control and monitoring systems as well as treatment programs. Indicators used to measure the extent of drug misuse consist of first treatment demand, drug-related deaths, offenses against drug legislation, number of convictions for drug offenses, seizures of illicit drugs, price of illicit drugs and illicit drug use, and AIDS (acquired immune deficiency syndrome).

Skretting, Astrid. *Report on Drug Misuse in Oslo*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), November 1991.

This report focuses on drug misuse in Oslo, Norway, including a history of drug misuse, a discussion of general policy and legislation, demographic information, surveys of drug misuse, and a description of control and monitoring systems and treatment programs. Indicators used to measure the extent of drug misuse include first treatment demand, hospital admissions, viral hepatitis, drug-related deaths, police arrests, imprisonment, seizures of illicit drugs, price/purity of illicit drugs, and HIV (human immunodeficiency virus) infection among intravenous drug users.

Toussirt, Mohamed; Facy, Françoise; and Ingold, François-Rodolphe. *Multi-City Study: Paris, Data Update, May 1991*. Strasbourg: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group), April 1992.

This report focuses on the Paris 1987 findings and presents demographic information and general policy and legislation descriptions. It also provides information on the indicators used by researchers to determine drug misuse, including first treatment demand, drug-related deaths, arrests, seizures, and price/purity of drugs.

#### ***Proceedings of the Community Epidemiology Work Group***

The Community Epidemiology Work Group is a network composed of researchers from major metropolitan areas of the United States and selected foreign countries. The

Work Group meets semiannually to discuss the current epidemiology of drug abuse. The primary mission of the Work Group is to provide ongoing community-level surveillance of drug abuse principally through collection and analysis of outcome and consequence data.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1992.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1992.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1991.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1992.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1991.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1991.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1990.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1991.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1990.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1990.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1989.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1990.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1989.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1989.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1988.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Division of Epidemiology and

Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1989.

*Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1988.* U.S. Department of Health and Human Services, Public Health Service, Alcohol, Drug Abuse, and Mental Health Administration, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse. Washington, DC: U.S. Government Printing Office, 1988.

***Laws and Regulations Promulgated To Give Effect to the Provisions of the International Treaties on Narcotic Drugs and Psychotropic Substances***

This is a series of legislative changes from countries that have ratified the United Nations international treaties on narcotic drugs and psychotropic substances.

*Afghanistan, June 8, 1990.* New York: United Nations, 1990.

*Australia, September 16, 1991.* New York: United Nations, 1991.

*Bahamas, July 17, 1990.* New York: United Nations, 1990.

*Bolivia, November 22, 1991.* New York: United Nations, 1991.

*Canada, October 27, 1989.* New York: United Nations, 1989.

*Chile, September 4, 1991.* New York: United Nations, 1991.

*Colombia, September 4, 1991.* New York: United Nations, 1991.

*Czech and Slovak Federal Republic, July 2, 1991.* New York: United Nations, 1991.

*Czechoslovakia, July 17, 1990.* New York: United Nations, 1990.

*Denmark, April 5, 1989.* New York: United Nations, 1989.

*Egypt, July 4, 1991.* New York: United Nations, 1991.

*Finland, August 22, 1988.* New York: United Nations, 1988.

*Finland, March 27, 1990.* New York: United Nations, 1990.

*Germany, July 4, 1991.* New York: United Nations, 1991.

*Ghana, August 1, 1991.* New York: United Nations, 1991.

*Honduras, September 4, 1991.* New York: United Nations, 1991.

*Hong Kong, July 4, 1991.* New York: United Nations, 1991.

*Islamic Republic of Iran, February 28, 1991.* New York: United Nations, 1991.

*Italy, November 7, 1989.* New York: United Nations, 1989.

*Malaysia, March 21, 1991.* New York: United Nations, 1991.

*Netherlands Antilles, June 21, 1990.* New York: United Nations, 1990.

*Panama, September 4, 1991.* New York: United Nations, 1991.

*Peru, April 11, 1988.* New York: United Nations, 1988.

*Philippines, July 3, 1991.* New York: United Nations, 1991.

*Spain, July 3, 1990.* New York: United Nations, 1990.

*Spain, September 4, 1991.* New York: United Nations, 1991.

*Sweden, May 7, 1990.* New York: United Nations, 1990.

*Sweden, July 4, 1991.* New York: United Nations, 1991.

*Switzerland, January 11, 1991.* New York: United Nations, 1991.

*Thailand, May 7, 1990.* New York: United Nations, 1990.

*Venezuela, April 11, 1988.* New York: United Nations, 1988.

### ***Background Materials on Drug Laws in Foreign Countries***

Asghar Ghorban-Hosseini, Ali. The Role Played by the Islamic Republic of Iran in the Worldwide Fight Against Narcotic Drugs. *International Criminal Police Review* No. 429 March-April 1991. pp 35-38.

This report discusses the Iranian Anti-Drug Act passed in 1988. Under this act all of the following are considered to be separate offenses: cultivating, importing, exporting, producing, illegal possession of, carrying, purchasing, distributing, selling, and abusing narcotic drugs. Running or establishing premises or providing facilities for narcotics abuse also are considered separate offenses.

*Brief Account of Drug Abuse and Countermeasures in Japan.* Japan: Ministry of Health and Welfare, 1991.

This report gives brief descriptions of the drug abuse problems and countermeasures in Japan with particular emphasis on stimulant and narcotic problems.

*Britain's International Strategy Against Drug Misuse.* United Kingdom, Foreign & Commonwealth Office, July 1992.

This report outlines the problem of drug abuse in the United Kingdom—its causes, negative effects, and methods in which drug abuse is spread. Details are provided regarding the British government's strategies for attacking the problem including international cooperation, police enforcement, prevention and education, and treatment and rehabilitation. The ways in which Britain has taken part in or taken advantage of international cooperative efforts also are discussed.

Bruno, Francesco. *Combatting Drug Abuse and Related Crime: Comparative Research on the Effectiveness of Socio-Legal Preventive and Control Measures in Different Countries on the Interaction Between Criminal Behavior and Drug Abuse.* Publication No. 21. United Nations Social Defence Research Institute, 1984.

This study hypothesizes that systems with varying levels of harshness of the foreseen sanctions also must exercise different levels of efficacy in reducing the criminal behavior of drug addicts. The study was carried out at three different and integrated levels: (1) the theoretical functioning of the system, (2) the perception of the capacity of the system to function, and (3) the practical functioning of the system which deduced what really occurred to the subjects in the experimental and control groups.

Correa, Marcial Rubio. *Legislacion Peruana Sobre Drogas a Partir de 1920.* Monografia de Investigacion No. 2. Lima, Peru: Centro de Informacion y Educacion Para la Prevencion del Abuso de Drogas, 1988.

This report presents an overview of the essential components of Peru's program for dealing with its drug trafficking problem. Included is a history of drug-related legislation from 1920 through 1985. In addition, all drug-related laws since 1920 through the date of the study, 1985, are commented on and analyzed. The following two appendixes are included: (1) a classified index on drug legislation in Peru and (2) the actual legal texts themselves.

*Drug Control in Mexico: A Comprehensive Program 1989-1994: Summary.* Office of the Attorney General of Mexico, Government of Mexico, 1992.

This report describes the Drug Control Program of Mexico which was provided by the Planning Act of 1983 and is the government's framework for implementing the national response to the drug problem. Its main lines of action are focused on the prevention and treatment of drug abuse, crime prevention, and a coordinated law enforcement attack against criminal organizations involved in all phases of drug trafficking.

*Drug Policies in Western Europe.* Albrecht, Hans-Jorg and van Kalmthout, Anton (eds.) Freiburg, Germany: Eigenverlag Max-Planck-Institut, 1989.

This report outlines the legislation, court practices, and law enforcement efforts of various Western European countries to control consumption, possession, and trafficking of illicit drugs.

*Drugs and Punishment: An Up-to-Date Interregional Survey on Drug-Related Offenses.* Publication No. 31. Rome, Italy: United Nations Social Defence Research Institute (UNSDRI), 1988.

The principal aim of this study is to offer an up-to-date picture of penal provisions for drug-related offenses and to present information on the sentencing practice trends in this field. The study presents basic models of drug abuse-related penal measures adopted in the countries surveyed and gives a detailed analytical view of the national legal system including penal sanctions and perceptions of national drug abuse situations.

*Drugs, Crime and Society.* Parliamentary Joint Committee on the National Crime Authority. Canberra, Australia: Australian Government Publishing Service, 1989.

This report discusses harsher penalties for drug violations as opposed to *de facto* decriminalization as a means to manage drug problems in Australia.

Harrison, Lana D. International Perspectives on the Interface of Drug Use and Criminal Behavior. *Contemporary Drug Problems* 19(2): 181-201, 1992.

This report explores the determining factors that contribute to both drug use and crime by comparing these problems internationally.

*International Digest of Health Legislation.* Geneva: World Health Organization, 1992.

This is a quarterly journal that publishes changes in drug laws from countries around the world.

*International Narcotics Control Strategy Report, March, 1992.* United States Department of State, Bureau of International Narcotics Matters, 1992.

This report discusses narcotics control policies and program development in 1991 and plans for future international control.

*International Narcotics Control Strategy Report: Mid-Year Update, September, 1992.* United States Department, Bureau of International Narcotics Matters, 1992.

This report addresses narcotics control efforts in Africa, the Caribbean, Central America, Europe, Mexico, the Middle East, the Pacific, South America, Southeast Asia, and Southwest Asia. The report also covers the topics of chemical controls and money laundering.

Kaker, R.N. Laws for Controlling Illicit Drug Traffic in Narcotic Drugs and Psychotropic Substances. *Indian Journal of Social Work* L(1): 113-117, 1989.

This report outlines the provisions of the Narcotic Drugs and Psychotropic Substances Act of 1985 including penalties, enforcement agencies, amendments, and immunity.

Lee, Rensselaer. *Dynamics of the Soviet Illicit Drug Market: Occasional Paper #242*. Washington, DC: Kennan Institute for Advanced Russian Studies Division of the Woodrow Wilson International Center for Scholars, 1990.

This report provides an overview of Soviet drug use including profiles of the Soviet drug user and the drug market, the means by which the Soviets combat this use, future perspectives on drug use, and U.S.-Soviet cooperation.

The Limits and Consequences of U.S. Foreign Drug Control Efforts. In: *The Annuals of the American Academy of Political and Social Science—Drug Abuse: Linking Policy and Research*, 151-162. Newbury, California: Sage Publications.

This report presents a simple economic analysis of the effects of major source-country control programs in the Andean region including eradication, crop substitution, and refinery destruction. Despite the continued failure of the programs and the analytic arguments against them, they continue to flourish in terms of the budget. They are protected by the rhetorical claims of the past, the need to appear to have a complete portfolio of programs, and the sheer momentum of drug control expenditures.

*Mexican Efforts in Drug Control 1991: The Drug Control Program 1989-1994*. Office of the Attorney General of Mexico, Government of Mexico, 1992.

This report remarks on the subject of drug trafficking and provides details of the progress made in drug control during 1991 by the public, private, and social sectors. It also includes statistical data showing the results obtained in the different work areas which are the outcomes in the fight against drug addiction and drug trafficking.

*Model Regulations Concerning Laundering Offenses Connected to Illicit Drug Trafficking and Related Offenses* (Considered and adopted by the general assembly at its 22nd regular session held in The Bahamas, on May 18th to 23rd, 1992.) Washington, DC: General Secretariat of the Organization of American States, 1992.

This report presents recommendations by the General Assembly of the Organization of American States to member States addressing the concerns associated with laundering offenses connected to illicit drug trafficking and related offenses.

*Model Regulations to Control Chemical Precursors and Chemical Substances, Machines and Materials* (Approved by the Inter-American Drug Abuse Control Commission at its seventh regular session.) Meeting of the Ministers on the Illicit Use and Production of Narcotic Drugs and Psychotropic Substances and Traffic Therein—Alliance of the Americas Against Drug Traffic, Ixtapa, Mexico—April 17, 1990. Organization of American States, 1992.

This report presents recommendations by the General Assembly of the Organization of American States to member States to control chemical precursors and other specific chemical products, machines, and materials used in the production, manufacture, preparation, importation, exportation, and/or any other type of illicit transaction involving narcotic drugs and psychotropic substances or others having a similar effect.

*Narcotic Control Act and Regulations: Departmental Consolidation.* Canada: Department of National Health and Welfare, September 1985.

This report defines in detail drugs of offense, offenses, search and seizure regulations, and punitive actions to be taken in cases where a narcotics offense has been committed in Canada.

*National Anti-Drug Plan: Anti-Drug Measures and Assistance for At-Risk Populations and Addicts (German Strategy).* Translation #451-03, CENTROPE International Language Services, 1990.

This report summarizes the German strategy for antidrug measures and assistance for at-risk populations and addicts. These strategies include an analysis of the illegal drug situation, an outline of drug policy, a description of national measures to reduce the demand for drugs, a description of the plan to combat drug crime at the national level, a description of legislative actions, and a description of international cooperation.

*National Drug Control Strategy, February 1991.* The White House. Washington, DC: U.S. Government Printing Office, 1991.

This report contains a thorough, intensive review of U.S. Federal antidrug efforts to date. Topics discussed include the criminal justice system, drug treatment, international initiatives, interdiction efforts, and research and intelligence agendas.

*1990 Narcotic, Controlled and Restricted Drug Statistics—Analysis Report.* Ottawa, Canada: Minister of Supply and Services, 1991.

This report reflects several aspects of the National Drug Strategy. Information on charges and convictions for drug-related criminal offenses comprise the first half of the report and reflect on the extent of enforcement activity and resulting court decisions. Information regarding the movement of illicit drugs from the medical supply market to nonmedical use provides an indication of the demand for psychoactive pharmaceuticals and the effectiveness of controls. Also included is a

brief examination of methadone maintenance information which provides insights into the demographics of persons undergoing treatment for opioid dependence.

*The NNIC Report 1991: The Supply of Illicit Drugs to the United States.* Washington, DC: Drug Enforcement Administration, National Narcotics Intelligence Consumers Committee, July 1992.

A product of a cooperative effort involving Federal agencies with drug-related law enforcement, foreign and domestic policy, treatment, research, and intelligence responsibilities, this report provides a comprehensive assessment prepared for the Federal Government on the worldwide illicit drug situation in 1991. An indepth analysis is made regarding the availability and use of cocaine, opiates, and cannabis in the United States and the developments in source regions and elsewhere around the world. The report also looks at stimulants, hallucinogens, depressants, benzodiazepines, narcotics, analgesics, and heroin substitutes.

*Pakistan's Fight Against Narcotics.* Islamabad, Pakistan: Government of Pakistan, Ministry of Information & Broadcasting, June 1986.

Pakistan's efforts to eradicate the drug problem are described in this report. The areas covered include law enforcement, treatment and rehabilitation, and prevention education.

Pinto, Russell. Narcotic Drugs and Psychotropic Substance Act, 1985. *Indian Journal of Social Work* 1(1): 119-124, 1989.

This report discusses the Narcotic Drugs and Psychotropic Substances Act of 1985 and includes a brief history of drug use and the laws governing drug use in India. Limitations of the act also are explored including the apparent tolerance of ganja use, the lack of distinction between the user and the trafficker, and the proscription of a maximum but no minimum punishment for violation of the laws.

*Plan Nacional Sobre Drogas: Memoria 1991.* Madrid, Spain: Ministerio de Sanidad y Consumo, Delegacion del Gobierno para el Plan Nacional sobre Drogas, 1992.

This report details Spain's National Plan on Drugs and presents a wide range of drug-related statistics such as the prevalence of drug use, drug confiscations, the number of persons in drug treatment, and the number of treatment centers. Also discussed are the organization of the Plan, its goals, and the responsibilities of the national government ministries and State ministries.

Porter, Lane; Curran, William J.; and Arif, Awni. Comparative Review of Reporting and Registration Legislation for Treatment of Drug and Alcohol Dependent Persons. *International Journal of Law and Psychiatry* 8:217-227, 1986.

This paper reviews national legislation on the following: (1) early identification and intervention for the treatment of drug and alcohol dependent persons and (2) the use of reporting and central registration as a means of accomplishing treatment goals. Legislative requirements for the reporting and central

registration of drug and alcohol dependents were found in 22 of the 43 countries surveyed by the World Health Organization.

Porter, L.; Arif, A.E.; and Curran, W.J. *The Law and the Treatment of Drug and Alcohol Dependent Persons*. Geneva: World Health Organization, 1986.

This report studies ways in which legislation can be used to promote the effective treatment of persons dependent on drugs or alcohol. Designed to aid the evaluation and improvement of current legislation, the book offers practical guidance based on a comparison of laws and regulations governing treatment programs in more than 40 developed and developing countries.

*The President's Drug Strategy: Has it Worked?* Majority Staffs of the Senate Judiciary Committee and the International Narcotics Control Caucus, September 1992.

This report presents major findings concerning the drug war and examines the successes and failures of this war as it attempts to answer the question: "Are we making sufficient progress in reducing drug abuse, ending drug crime, and eliminating the drug supply?"

*The Quest Review*. Interpol, Drugs Sub-Division, 1991.

This periodical is produced quarterly and addresses international law enforcement efforts to reduce the production, consumption, and trafficking of illicit drugs worldwide.

Reuter, Peter and Ronfeldt, David. *Quest for Integrity: The Mexican-U.S. Drug Issue in the 1980's*. Santa Monica, CA: Rand, 1992.

This report analyzes the interaction of the United States and Mexico with respect to drugs. It begins by developing estimates of the value added in marijuana and opium/heroin production in Mexico, a country with an actually very small drug use problem. It then examines the political setting of drug production and trafficking and goes on to argue that in order to understand the Mexican government's response to drug production, it is necessary to recognize the long history of smuggling in both directions across the U.S.-Mexican border. Finally it examines the emergence of a new Mexican national security apparatus and doctrine.

Ruter, Frits. *The Pragmatic Dutch Approach to Drug Control: Does It Work?* Lecture presented May 25, 1988, at the Rayburn House Office Building, Capitol Hill. Washington, DC: The Drug Policy Foundation, 1988.

This report presents the Dutch method of dealing with narcotics including effectiveness statistics. The role of law enforcement in drug control and the open tolerance for drug use also are discussed.

*Seizing Opportunities: Report of the Inter-American Commission on Drug Policy, June 1991.* San Diego, CA: Institute of the Americas and the Center for Iberian and Latin American Studies, 1991.

This report outlines the drug problems facing America with particular emphasis on the rise in drug abuse in the last few years and the accompanying costs to society. The report recommends solving the problem through increased demand reduction efforts such as treatment and prevention, rather than military efforts such as drug seizures.

Solomon, R.M. and Usprich, S.J. "Canada's Drug Laws." *The Journal of Drug Issues* 21(1), 017-040, 1991.

Canada's drug laws were originated and developed in response to racial and political factors rather than reasoned analysis. After tracing the history of the legislation, this paper outlines the current drug offenses and enforcement powers. Also discussed are the impact of the Canadian Charter of Rights and Freedoms on drug legislation and enforcement.

*Sourcebook of Criminal Justice Statistics, 1991.* Flanagan, Timothy J. and Maguire, Kathleen (eds.) U.S. Department of Justice Programs, Bureau of Justice Statistics. Washington, DC: U.S. Government Printing Office, 1992.

This report brings together nationwide data of interest to the criminal justice community. It is divided into the following six sections: (1) characteristics of the criminal justice systems, (2) public attitude toward crime and criminal justice-related topics, (3) nature and distribution of known offenses, (4) characteristics and distribution of persons arrested, (5) judicial processing of defendants, and (6) persons under correctional supervision.

*Summary Fact Sheets on EC Drug Documentation.* Brussels: Commission of the European Communities, 1992.

This report provides information on the European Community's (EC's) drug documentation since December 1990. Subsequent reports focus on some areas of the 1990 plan to combat drugs including feasibility studies, reports on the national programs for drug-demand reduction in the EC, council directives on preventing the use of the financial system for money laundering, and council regulations laying down measures to discourage the diversion of certain substances to the illicit manufacturing of narcotic drugs and psychotropic substances.

Tamura, M. Japan: Stimulant Epidemics Past and Present. *Bulletin on Narcotics* XLI (1/2): 83-91, 1989.

This report discusses Japan's experience of a serious stimulant epidemic during the period from 1946 to 1956 and a resurgence of that epidemic since 1970. The report explores the series of drug control measures which the Japanese government has put into effect over the years.

*Thailand Narcotics Annual Report 1990.* Thailand: Office of the Narcotics Control Board, Office of the Prime Minister, 1990.

This report includes details on the year that experienced 56,054 arrests; seizures of 1,134.236 kgs of heroin, 919.036 kgs of opium, 421.011 kgs of cannabis, 246.638 kgs of kratom plant, 75.817 kgs of amphetamine, 130.200 kgs of acetic anhydride, 1,000.408 kgs of ether and chloroform, and 173.695 kgs of other drugs; and a new antinarcotics law that empowers authorities to freeze or confiscate the assets of suspected drug traffickers.

*Treaties in Force: A List of Treaties and Other International Agreements of the United States in Force on January 1, 1992.* Department of State, Office of the Legal Advisor. Department of State Publication 9433. Washington, DC: U.S. Government Printing Office, 1992.

This report lists treaties and other international agreements of the United States on record in the Department of State on January 1, 1992. At that time these had not expired their terms, been denounced by the parties, replaced or superseded by other agreements, or otherwise definitely terminated.

Wever, Leon J.S. *Drug Policy Changes in Europe and the United States: Alternatives for International Warfare.* Paper presented to the second international conference on the reduction of drug related harm, Barcelona, Spain, March 2-6, 1991.

This report postulates that the "war on drugs" is not a war at all but is only a lack of democracy and individual freedom which has inadvertently exacerbated worldwide drug abuse problems. It maintains that drug policies should emphasize demand reduction in the form of treatment and prevention rather than on harsh punitive measures and supply reduction. Drug demand reduction programs in Belgium, Denmark, France, the Netherlands, Spain, the United Kingdom, and the United States are outlined.

*When the State Kills...The Death Penalty: A Human Rights Issue.* New York: Amnesty International USA, 1989.

This report details national laws from countries of the world that impose the death penalty for law violations. It refutes arguments that capital punishment is a deterrent to antisocial behavior and suggests that the death penalty is always a violation of human rights regardless of the severity of the crime.

Wijngaart, Govert Frank. *Competing Perspectives on Drug Use: The Dutch Experience.* Amsterdam; Berwyn, PA: Swets & Zeitlinger, 1991.

This report explains drug policy and gives statistics concerning drug use in the Netherlands.

Wilcocks, Lee and Edmonds, Laura. Alcohol and Drug Abuse: Treatment Alternatives in South Africa. *Employee Assistance Quarterly* 7(3): 1992.

This report provides an overview of alcohol and drug problems in South Africa. The authors identify the social and economic implications of the most commonly abused drugs and penalties for offenders. Intervention methods enforced by the court system also are examined. Additionally the current status of chemical dependency treatment and self-help groups are discussed.

Williams, Bob; Chang, Kit; and Van Truong, Minh. *Drug-Related Offences in Canada. Canadian Profile - Alcohol and Other Drugs 1992*. Toronto: Addiction Research Foundation, 1992.

This report explains narcotics offenses and punishments as detailed in the Narcotic Control Act and the Food and Drugs Act. The report also details offenses committed in Canada between 1983 and 1990.

*Worldwide Cocaine Situation, 1990*. Washington, DC: U.S. Department of Justice, Drug Enforcement Administration, January 1991.

An overview of the cocaine situation in 1990 is provided. The report describes significant highlights of cocaine trafficking trends and brief summary data on each of the Drug Enforcement Administration Field Divisions and pertinent Foreign Country Offices.

*Worldwide Heroin Situation, 1991*. Washington, DC: U.S. Department of Justice, Drug Enforcement Administration, June 1992.

This report takes an indepth look at the heroin situation in the United States and abroad in 1991 by considering trends in production, trafficking, markets, and shifts in demand for heroin.

Yokoyama, Minoru. Development of Japanese Drug Control Laws Toward Criminalization. *Kokugakuin Journal of Law and Politics* 28(3): 1-21, 1991.

This report is a revision of the paper presented at the International Conference on Crime, Drugs and Social Control which was held by the Research Committee for the Sociology of Deviance and Social Control, International Sociological Association, and the Hong Kong Society of Criminology in 1988. This report discusses drug control laws in the past and present, and a special focus is given to juvenile offenders.

### ***Background Materials Relevant to the United Nations***

*Commission on Narcotic Drugs Economic and Social Council Cumulative Index 1987-1990: National Laws and Regulations Relating to the Control of Narcotic Drugs and Psychotropic Substances*. New York: United Nations, 1991.

This report is designed both as a comprehensive reference to the various aspects of drug control laws and regulations and as a practical tool for use at the national and international levels. It provides a method for continuous mutual disclosure by parties (and nonparties on a voluntary basis) of their legislative position in relation

to the control activities required under those conventions. The index covers all national laws and regulations on narcotic drugs and psychotropic substances which governments have communicated to the Secretariat during the period 1987 to 1990.

*Commission on Narcotic Drugs: Report on the Third-Fourth Session (29 April-9 May 1991.)* Supplement No. 4. New York: United Nations Economic and Social Council Official Records, 1991.

This report is a draft resolution of recommendations made by the Commission on Narcotic Drugs to the Economic and Social Council of the United Nations. Recommendations include enlarging the Commission; controlling chemicals used in the production of cocaine, heroin, and other illicit drugs; and implementing the International Drug Abuse Assessment System.

*Demand For and Supply of Opiates for Medical and Scientific Needs.* United Nations International Narcotics Control Board, Vienna. New York: United Nations, 1989.

This report covers the legal supply of opiate raw materials (and the processed morphine equivalent) for the primary production countries. Demand is presented in terms of known licit consumption and a discussion of probable unmet demand. Also included is a discussion of the requirements of an adequate system to monitor demand, regulate the dispensing of opiate drugs, and train health professionals in monitoring demand and use.

*Economic and Social Consequences of Illicit Trafficking in Narcotic Drugs and Psychotropic Substances.* Commission on Narcotic Drugs, Thirty-Fifth Session, Vienna, 6-15 April 1992, Item 7 of the Provisional Agenda. United Nations Economic and Social Council, 1992.

In Resolution 44/142, the General Assembly requested the Secretary-General to undertake a study on the economic and social consequences of illicit drug trafficking. To further that end, the former Division of Narcotic Drugs convened an expert group to examine the question. The Commission charged with studying the report of this expert group invited the Executive Director of the United Nations International Drug Control Programme to analyze the recommendations of the expert group. This document contains the views of the Executive Director as requested by the Commission.

*Implementation of Targets 1- and 20-35 of the Comprehensive, Multi-disciplinary Outline of Future Activities in Drug Abuse Control.* Commission on Narcotic Drugs, Thirty-Fifth Session, Vienna, April 6-15 1992, Item 3(b)(i) of the Provisional Agenda. United Nations Economic and Social Council, 1992.

Questionnaires were sent to member countries to assess each country's progress in implementing the targets of the Comprehensive Multi-disciplinary Outline of Future Activities in Drug Abuse Control. These targets include assessment of the extent of drug misuse and abuse; prevention through education; prevention in the workplace; prevention programs by civic, community, and special interest groups

and law enforcement agencies; leisure time activities in the service of campaigning against drug abuse; and the role of the media.

*International Drug Abuse Assessment System Annual Reports Questionnaire 1989 (Working Draft)*. United Nations Economic and Social Council, Commission on Narcotic Drugs, 1989.

This document is a draft of the Annual Reports Questionnaire. This was developed as a result of the need to improve the quality of data describing the nature and extent of drug use among member States introduced at the 1987 International Conference on Drug Abuse and Illicit Trafficking.

*Narcotic Drugs: Estimated World Requirements for 1992: Statistics for 1990*. United Nations International Narcotics Control Board, 1991.

This report includes a series of graphs and charts designed to detail international narcotics figures. Some topics covered include trends in licit movement of narcotic drugs, manufacture and consumption of the principal narcotic drugs, and the total stock of narcotic drugs.

*Protocol Amending the 1961 Single Convention on Narcotic Drugs, 1972*. New York, United Nations, 1972.

This document introduces certain amendments to the 1961 convention.

*Psychotropic Substances in Europe: Trends in Licit Use*. United Nations International Narcotics Control Board. New York: United Nations, 1990.

The purpose of the present study is to clarify the extent of licit, medical use of psychotropic substances in Europe and to analyze utilization trends. It is hoped that reliable and comparable national drug consumption statistics will become increasingly available from a growing number of countries as a result of extending the Anatomic Therapeutic Chemical classification system of the World Health Organization, and by improving the techniques for measuring defined daily doses (which have been used in the Nordic countries for several years).

*Psychotropic Substances: Statistics for 1989*. United Nations International Narcotics Control Board. New York: United Nations, 1990.

This report includes statistics and an assessment of these statistics concerning international psychotropic substance use.

*Quarterly Summary of Reports of Significant Seizures Received by the Secretary-General from October 1 to December 31, 1991*. United Nations Economic and Social Council, January 15, 1992.

This report summarizes reports of illicit transactions and seizures of narcotic drugs and psychotropic substances. These are based on information from cases of illicit drug trafficking communicated by governments (during the period from October 1

to December 31, 1991) and forwarded to the Secretary-General in accordance with the provisions of article 18.1(c) of the single Convention on Narcotic Drugs, 1961, and article 16.3 of the Convention of Psychotropic Substances. The aim of this summary is to compile the material received in order to assist concerned national authorities in identifying trends in the illicit traffic and thus determine the manner in which countermeasures may be applied most effectively. This serial publication is produced quarterly and deals with various aspects of international law enforcement involving the control of illicit substances.

*Report of the International Conference on Drug Abuse and Illicit Trafficking, Vienna, June 17-26, 1987.* New York: United Nations, 1987.

The body of this report, the Comprehensive Multidisciplinary Outline of Future Activities in Drug Abuse Control, is a repertory of recommendations adopted at the Conference on Drug Abuse and Illicit Trafficking. This report was addressed to those governments and organizations setting forth practical measures that contribute to the fight against drug abuse and the suppression of illicit trafficking. Recommended future activities are to be aimed at prevention and reduction of the illicit demand for narcotic drugs and psychotropic substances, control of drug supply, suppression of illicit trafficking, and treatment and rehabilitation.

*Report of the International Narcotics Control Board for 1991.* International Narcotics Control Board, Vienna. New York: United Nations, 1991.

*Report of the International Narcotics Control Board for 1992.* International Narcotics Control Board, Vienna. New York: United Nations, 1992.

The 1991 and 1992 reports are divided into the following three sections: (1) an overview; (2) operation of the international drug control system; and (3) an analysis of the world situation including Africa, the Caribbean, East and Southeast Asia, Europe, the Near and Middle East, North America, Oceania, South and Central America, and South Asia.

*Supplement No. 7 to Narcotic Drugs: Estimated World Requirements for 1991: Statistics for 1989.* United Nations International Narcotics Control Board, 1991.

This volume presents a range of studies assessing the accuracy of alternative methods for the survey measurement of drug use. The various papers in this volume offer a wide-ranging view of the impact of measurement procedures on drug use survey measurements. New techniques are introduced for diagnosing problems with survey questionnaires and for designing improved ones.

*United Nations and Drug Abuse Control.* New York: United Nations International Drug Control Programme, 1992.

In response to the international drug abuse developments, the United Nations strengthened its capacity to counteract drug abuse and illicit trafficking, and in 1991 established the United Nations International Drug Control Programme. This Programme coordinates all United Nations drug control activities, promotes the

implementation of the relevant treaties, and provides effective leadership in international drug control. The Programme serves as the focal point for the United Nations Decade Against Drug Abuse (1991 to 2000) proclaimed by the General Assembly in 1990. The objective is to promote the implementation of the Global Programme of Action.

*United Nations Conference for the Adoption of a Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Vienna, Austria, November 25 - December 20 1988.* New York: United Nations Economic and Social Council, 1988.

This report presents the final form of the agreement made at the United Nations Conference in 1988. It includes definitions of the following: terminology for narcotic drugs and psychotropic substances, offenses and sanctions, jurisdiction, confiscation, extradition, mutual legal assistance, and other forms of cooperation. Also discussed are substances frequently used in the illicit manufacture of narcotic drugs or psychotropic substances.

*United Nations Conference for the Adoption of a Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Vienna, Austria, November 25 - December 20, 1988: Corrigendum.* New York: United Nations Economic and Social Council, 1988.

This report includes corrections to article 12, paragraph 4, and 21 articles are added. Topics covered include measures to eradicate illicit demand for narcotic drugs and psychotropic substances; commercial carriers, commercial documents, and labelling of exports; illicit traffic by sea; free trade zones and free ports; and the use of the mails.

*United Nations Conference for the Adoption of a Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Vienna, Austria, November 25 - December 20, 1988: Final Act.* New York: United Nations Economic and Social Council, 1988.

This report gives the proceedings of the 1988 Vienna United Nations Conference held to draft a convention against illicit traffic in narcotic drugs. Topics considered include the various aspects of the problems as a whole and, in particular, those problem not envisaged in existing international instruments.

*United Nations Conference for the Adoption of a Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Vienna, Austria, November 25 - December 20, 1988: Text of the Draft Convention Agreed Upon by the Drafting Committee.* New York: United Nations Economic and Social Council, 1988.

This is a draft of the agreement made at the United Nations Conference in 1988 including definitions of narcotic drugs and psychotropic substances, offenses and sanctions, jurisdiction, confiscation, extradition, mutual legal assistance, measures to eradicate illicit cultivation of narcotic plants and to eliminate illicit demand for narcotic drugs and psychotropic substances, illicit traffic by sea, and the use of the mails.

*United Nations Conference for the Adoption of a Single Convention on Narcotic Drugs, 1961.* Geneva: United Nations, 1961.

This is the first United Nations Conference that developed guidelines for country legislation regarding narcotic drugs. It includes definitions of narcotic drugs and discusses legislative and law enforcement issues such as extradition, confiscation, offenses, and sanctions.

# **DRUG USE IN THE WORKPLACE AND THE EFFECTS OF DRUG TESTING**

*Submitted to:*

**Office of National Drug Control Policy  
Executive Office of the President  
750 17th Street, N.W.  
Washington, DC 20500**

*Submitted by:*

**CSR, Incorporated  
Suite 300  
1400 Eye Street, N.W.  
Washington, DC 20005**

**May 24, 1993**

---

---

## TABLE OF CONTENTS

---

---

<b>PART I: HIGHLIGHTS OF THE RESEARCH</b> .....	1
INTRODUCTION .....	1
SUMMARY OF FINDINGS .....	1
DISCUSSION .....	2
AREAS FOR SUGGESTED FURTHER RESEARCH .....	4
<b>PART II: RESEARCH FINDINGS</b> .....	5
INTRODUCTION .....	5
BEHAVIORAL EFFECTS OF DRUG USE .....	6
DRUG-TESTING PROTOCOLS .....	8
OBSERVATIONS ADDRESSING WORKPLACE DRUG TESTING .....	10
INDUSTRY PERCEPTIONS OF DRUG TESTING .....	12
<b>APPENDIXES</b>	
APPENDIX A: SAMPLE LETTER REQUESTING INFORMATION FROM NIDA CERTIFIED LABS	
APPENDIX B: SAMPLE LETTER OF INTRODUCTION TO U.S. INDUSTRY REPRESENTATIVES	
APPENDIX C: INDUSTRY INTERVIEW PROTOCOL	
APPENDIX D: REPORTS OF INTERVIEWS WITH U.S. INDUSTRY REPRESENTATIVES	
APPENDIX E: BIBLIOGRAPHY	

---

---

## HIGHLIGHTS OF THE RESEARCH

---

---

### INTRODUCTION

The direction of Federal policies and regulations with respect to drug use in the workplace has followed a generally stable course over terms of the last three or more presidents. The tendency has been for development of Government-mandated testing in safety-critical occupational environments, increasing the number of substances included within the drug-testing guidelines, development of more rigorous and sensitive testing protocols, and maintenance of zero drug-use tolerance.

Not surprisingly, throughout the Nation's widely diverse workplaces and ideological persuasions there are differing beliefs with respect to testing standards and drug-use consequences. With a new administration now in place, it can be expected that there will be a general review of current drug control policies and an examination of policy options available to the administration.

### SUMMARY OF FINDINGS

Particularly in drafting policies directed to encouraging private-sector, voluntary workplace, drug-testing programs, our review suggests that the following considerations will affect the degree to which these policies will be adopted by employers and employees.

- *Perceived risk.*—Support for workplace drug testing is likely to be influenced by the physical and economic risk as perceived by employers and employees. Within a given work environment, the more risk that is perceived by both management and the employees, the more there will be agreement upon the desirability of instituting workplace drug testing.
- *Performance decrement.*—The perceived efficacy of drug-testing programs will be enhanced if testing levels of the test include drugs that can be shown to cause unacceptable performance decrements over specific job descriptions. (Please note that this is related to perceived risk.)
- *Zero tolerance.*—While zero tolerance for tested drugs may be the ideal standard under the most demanding performance requirements, the agency may wish to consider establishing less stringent standards that would be consistent with reduced job performance requirements. (Please note that this is the case in establishing acceptable/unacceptable blood alcohol levels when testing automobile drivers.)
- *Acceptable tolerance.*—This concept balances economic risk management against those circumstances where zero tolerance is the preferred risk management standard. Acceptable tolerance recognizes that there may be conditions where a standard of zero

tested drug levels imposes an enforcement cost greater than can be defended on economic grounds, and therefore will be less likely to be supported by private-sector employers.

- *Alcohol.*—Alcohol probably is the most frequently mentioned substance abuse problem. However, it rarely is included in private-sector drug-testing protocols. This may be a result of general public acceptance of responsible alcohol use and draconian consequences that follow under a zero tolerance policy.
- *Total elimination of drugs.*—This is a valid social ideal. However, it may be a virtually unattainable goal. As drug testing yields fewer and fewer positive cases, the unit cost per positive case may rise to levels that are not affordable to some employers. However, periodic testing with relatively small samples can provide an early warning system for detecting changes in the drugs of choice, dosages, and use rates.

## DISCUSSION

This section of our report discusses a number of workplace drug-testing issues which are likely to be addressed during debates on drug control policy and the alternative implications of these issues.

### Zero Tolerance as a Drug-Testing Standard

A policy of zero tolerance affirms that a tested employee will show drug levels no greater than that which will eliminate the possibility of a falsely positive test conclusion (i.e., the test shows drug use when, in fact, the employee is drug free). This possibility can arise when certain types of nondrug substances and foods produce metabolites that mimic the results of true drug use.

The zero tolerance policy has produced a drive among testing laboratories to develop drug tests that are increasingly sensitive (i.e., are able to detect true positives that are progressively closer to the drug-free state).

### Selection of Substances To Be Included Within Drug-Testing Policies

A wide range of substances is now within the purview of drug testing. The full list of these substances spans the range from the most addictive psychoactive substances to common household remedies for colds and minor muscle pains. The most commonly selected drugs for testing are heroin, cocaine, and marijuana—although marijuana is the drug most commonly associated with workplace accidents. Some drug control entities include alcohol and tobacco as drugs, although only alcohol may be routinely tested for as part of postaccident investigations.

### Drug-Induced Performance Decrement

The most commonly given reason for performing drug testing is to prevent or reduce workplace accidents and reduce the risk of producing defective products. However, little has been written documenting the degree of decrement in performance, among the many different

drugs, as a function of blood drug levels. The most common descriptions of performance decrement are provided only for highly toxic levels where the drug user is hallucinating, comatose, or close to death. Within the workplace, however, instances at this extreme are very unlikely to occur, or at least the toxic condition would readily be recognized and the individual removed before any serious job-related consequences occurred. A singular exception is alcohol, for which descriptions of several degrees of impairment are correlated with blood alcohol levels. In this respect, it should be remembered that most States employ statutory provisions classifying varying degrees of motor vehicle operating impairment according to blood alcohol levels.

The type of performance decrement also varies depending upon the various drug types and the cognitive, physical, and coordination requirements of the various occupations.

### Workplace Drug Use as a Social Issue

In some workplace settings, drug impairment may be the cause of unsatisfactory social relations, either between a drug user and other employees or in relationships with clients. These cases are not necessarily associated with accidents or reduced productivity of the drug-using employee. However, unacceptable behavior of the drug-using employee may indirectly reduce organizational productivity by adversely affecting the performance of other employees. At lower blood drug levels not correlated with unacceptable behavior, a more lenient perspective is likely to be taken by management and coworkers.

### Workplace Drug Use as a Problem in Risk Management

The precepts of rational management and the results of interviews with a variety of industry representatives suggested that eliciting support for voluntary drug testing in the private sector is essentially a problem in risk management. The following are various management- and employee-perceived risk combinations which appear likely to influence attitudes and acceptance of organizational testing programs:

COMBINATIONS OF PERCEIVED RISK LEVELS*				
	Employer	Employee (Self Only)	Employee and Coworkers	Coworkers Only
1)	H	N/A	H	N/A
2)	H	L	L	L
3)	H	H	N/A	L
4)	H	L	N/A	H
5)	L	N/A	L	N/A
6)	L	L	N/A	L
7)	L	L	N/A	H
8)	L	N/A	L	N/A

H = High perceived economic or physical risk

L = Low perceived economic or physical risk

N/A = Not applicable

\*Not all combinations, including No. 8, were reflected in the organizations interviewed.

The highest perceived risk combination is No. 1, where employers, employees, and coworkers perceive high workplace risk from drug use. This is the risk environment of the boilermaking industry, in which workers consider the work environment to be so hazardous that the employees insisted upon drug testing.

The lowest risk combination is No. 8, where neither employers nor employees perceive themselves to be at risk for drug use. Organizations interviewed with this assessment reflected no need or advantage in establishing drug-testing programs.

## AREAS FOR SUGGESTED FURTHER RESEARCH

Perhaps the weakest link in workplace drug-testing strategies is failure to establish a credible connection between drug types, blood drug levels, and performance decrement. Suggested here are three approaches to correlating performance decrement with drug use, none of which is complete in itself but all of which are mutually reinforcing and can be initiated simultaneously.

- *Laboratory testing.*—Volunteers are administered varying dosages of the drugs of interest and subsequently are administered standard tests to measure differences in performance. We understand that up until recently testing was being performed at the National Institute on Drug Abuse (NIDA) Addiction Research Center in Baltimore, Maryland, on humans to determine behavioral changes of subjects under the influence of different drugs at a variety of dosage levels.

This is probably the most rigorous method and also the method likely to produce the most credible results. However, it is a very expensive and time consuming approach and also is likely to be the target of ethical criticisms.

- *Correlating accident and drug level data.*—This approach would use postaccident drug-testing findings in combination with accident reports, such as those produced by the Occupational Safety and Health Administration.
- *U.S. Department of Labor (DOL) data.*—DOL produces job analyses which identify human performance requirements crucial for satisfactory job performance. Matching these performance specifications with the known physical and cognitive effects of the primary drugs of interest should enable producing an initial screening of job classes most vulnerable to the adverse performance effects of each drug type. Prior to awarding this task order, a conversation between a DOL staff member and a CSR staff member ended with the conclusion that this type of study is entirely feasible.
- *Performance decrement testing at NIDA.*—We made attempts to confirm the existence of a current program at NIDA to investigate drug-induced performance decrement testing. As of May 24, 1993, we were unable to confirm the status and extent of this program.

There is a common interest in human performance measurement associated with workplace safety that is beginning to emerge within the U.S. Departments of Transportation, Defense, and Health and Human Services.

---

---

# RESEARCH FINDINGS

---

---

## INTRODUCTION

### How the Data Was Collected

The statements and perspectives expressed in this report were drawn primarily from literature sources and interviews.

The bibliography references 47 text sources, most of which date from 1990 to the present. Numerous surveys in the United States and Canada were outlined and discussed. The key subject areas of the literature included results of research in drug testing, strategies and experience by industrial grouping, strategies and experience by occupational grouping, and selected case studies.

For purposes of developing this report, the information obtained from interviews with industry representatives and the literature was viewed with the major focus upon three subject areas including the behavioral effects of heroin and cocaine, drug-testing protocols, and drug testing in field occupational settings.

The three subject areas mirror the three "building block areas" set forth in CSR, Incorporated's stated approach to the work. The data were then reviewed again in the context of a "fourth building block" perspective (i.e., how the information related to alternative drug-testing policies).

It can be said that, in general, for every statement on drug use in the workplace, another statement could be found in the literature that expressed the opposite perspective. For example, statements on the extent of drug use in the workplace ranged in the extreme.

On one hand, the scope of drug use in the workplace was portrayed as severe and urgent, a matter costing lives and millions of dollars in industry productivity each year. Others claimed that the problem of drug use in the workplace was overstated and media generated. Perspectives on the advent of drug-testing programs were no less varied—viewed as "bere to stay" by some, as "management fads" by others, and as a kind of "moral and scientific surveillance" approach by still others.

Interviews for this report were conducted with three prominent members of NIDA-certified laboratories with the knowledge that combined reporting for all NIDA-certified laboratories is expected to begin later in 1993.

In addition, interviews on drug testing in the workplace were held with representatives from U.S. industry. Representatives from the petroleum, construction, transportation, textile, and boilermaking industries, as well as Fortune 500 companies were asked about their motivation to perform drug testing and the impact such testing procedures have had to date.

Labor unions and industry associations were interviewed, including the American Petroleum Institute; American Road and Transportation Builders Association; American Textile and Manufacturers Institute; Associated Builders and Contractors; Building and Construction Trades Department, American Federation of Labor-Congress of International Organizations (AFL-CIO); Institute for a Drug-Free Workplace; and Mobilization, Optimization, Stabilization, and Training (M.O.S.T.).

Finally, additional information for this report was gleaned from sources too recent to have been produced by a standard literature search. These sources include the following:

- *The Making of a Drug Free America: Programs that Work.*—Written by Malthea Falco, the chapter, "Driving Drugs from the Workplace," made two points with significant policy implications. First, the author discussed how the 1991 subway accident in New York City focused the public's attention on the incongruity of testing for drugs but not alcohol in safety sensitive positions. Second, the limitations of urine testing as a method of measuring actual work impairment or performance problems is addressed.
- *The American Management Association's 1992 Survey of Workplace Drug Testing and Drug Abuse Policies.*—Of particular note in the survey was that only 7.5 percent of the companies that test for drug use report that they have undertaken a cost-justification study of their testing programs.
- *The Conference Proceedings Report from the July 1992 Conference on Substance Abuse in Small Businesses.*—Sponsored by DOL, the Small Business Administration, and the Office of National Drug Control Policy (ONDCP), this conference addressed the problems and issues facing small businesses as they consider drug-testing programs.

## BEHAVIORAL EFFECTS OF DRUG USE

### Drugs of Greatest Use

At the time that the workplace drug-testing task order was issued by ONDCP, the focus of the task order was on the physical, mental, and social consequences of heroin and cocaine use. CSR has abided by that instruction in reviewing the literature and conducting interviews. However, our findings indicate that, according to both employees and employers, marijuana, tranquilizers, and alcohol use pose the most significant safety and productivity concerns.

### Substance Use and Mental Clarity

Several authors in the literature stressed the fact that all substances can affect one's mental clarity and, therefore, work performance. The literature also suggests that workplace safety risks depend less on the type of drug used than on the specific occupational setting. For example, in the case of an inherently dangerous profession such as boilermaking, even the slightest impairment in a worker's coordination and concentration could result in death or injury on the job. For this reason, all types of testing for both legal and illegal drugs is supported overwhelmingly by the boilermakers and their union.

## **Alcohol Versus Drug Use on the Job**

In safety sensitive positions, it appears that the type of drug that is used on the job is not the issue for employers or employees. What matters is that any drug at all is used. In 1991 the futility of requiring drug testing but not alcohol testing on inherently dangerous jobs became excruciating clear when a New York City subway train jumped the rails and crashed into a tunnel wall, killing 5 people and injuring 170 others. A crack-cocaine vial was found in the driver's cab, and the motorman was drunk when apprehended 4 hours later.

This New York City subway accident transformed drug-testing policy overnight. The New York City Transit Authority initiated random drug and alcohol testing for subway crews and bus drivers, and in Washington, D.C., the Department of Transportation (DOT) mandated alcohol testing late in 1992 for all transportation workers in safety sensitive positions.

## **Variable Effects of Substance Use in the Workplace**

Different drugs produce different effects in people depending on a wide range of physical, mental, and environmental circumstances. For example, the same amount of cocaine will produce euphoria in one individual and respiratory failure in another. Certainly no one expected that such healthy young athletes as University of Maryland basketball star Len Bias or Cleveland Browns safety Don Rogers would die from a night of cocaine use.

The varying effects of the same substance on different individuals is especially evident in the case of alcohol for two reasons. First, alcohol abuse is so common and so socially acceptable. And second, the fine line that exists between social drinkers and problem drinkers may obscure the extent of an alcohol problem and its potential impact on a given work environment. In any given work environment, the same amount of alcohol that impairs one person may not impair another.

The impact of marijuana use in the workplace varies tremendously according to individual and occupational setting. Some individuals under the influence may exhibit behavior that is indistinguishable from slightly antisocial behavior or behaviors that are triggered by stress, illness, or fatigue. In certain job settings, an employee's marijuana use can conceivably produce little or no consequence.

In other job settings, however, the effects of marijuana use can be devastating. Its impact on cognitive functions were clearly felt when American Airlines reported that one employee, high on marijuana, failed to operate the central reservations system computer properly, causing \$19 million in losses due to computer downtime and lost reservations information.

In January 1987 a Conrail train filled with college students and others returning home after the Christmas holidays crashed in Chase, Maryland, killing 16 passengers, injuring 174, and causing millions of dollars in property damage. The Conrail engineer and brakeman had been smoking marijuana. And despite the fact there is a troubling lack of research on the potential physical dangers of marijuana use, the use of marijuana by workers in safety sensitive positions can be deadly.

## Impacts of Substance Use In the Alberta Workplace

In an extensive survey conducted by the Alberta Alcohol and Drug Abuse Commission in Alberta, Canada, the substance of choice was alcohol and the most commonly used illicit drug was marijuana. In addition, people who used drugs while at work tended to do so with other people.

The impact of substance abuse on the Alberta workplace was determined by measuring the frequency of workplace performance problems or "incidents." The incidents reported by the workforce clustered into four groups, ranging from low-profile productivity problems to more serious problems that pose health, safety, and security risks.

The survey concluded that whether or not the use occurs on the job or off the job, there is substantial impact on the workplace. Absenteeism and work slowdowns appear to have the most pervasive impact, with absenteeism costing the Alberta economy approximately \$400 million annually. Other costs produced by substance use include employee assistance programs (EAP's), insurance, or workers' compensation. Costs were estimated to be up to 2 percent of a business' gross sales due to pilferage, decreased productivity, loss of customers after contact, reduced incentive of other workers to perform due to seeing their drug-using coworkers slack off, or accidents.

## DRUG-TESTING PROTOCOLS

### Improvements In Technology

The technology for testing for drugs in urine has greatly improved in recent years. However, the most accurate techniques are often quite expensive and are therefore not suitable for large-scale screening programs. On the other hand, inexpensive screening techniques are not sufficiently accurate for forensic testing standards, which must be met when a person's employment or reputation may be affected by the results. This is especially a concern during the screening of a population in which the prevalence of drug use is very low and in which the predictive value of a positive result would be quite low.

It should be noted that while urinalysis continues as the favored method of medical drug testing, blood testing, and hair testing methods are utilized by a very small percentage of organizations.

NIDA lab certification standards are recognized as appropriate guidelines for the analysis and handling of samples in such a manner that ensures that the test results are legally defensible. Enzyme immunoassay is the recognized technique used to perform the initial test on samples, followed by a confirmation test performed on any positive samples, using gas chromatography-mass spectrometry.

### Costs of Drug Testing

In a series of interviews conducted with representatives from U.S. industry, the costs of drug testing averaged \$40 per test, with the exception of an arrangement in which 16,000

construction-related firms combined their bargaining power to contract with a lab that charged \$24 per test and \$2.19 per employee per month for employee assistance services.

This gathering of businesses into consortiums of bargaining power is an increasing trend which now allows small businesses to secure competitive pricing for their respective drug-testing programs. For example, the Drug-Free Workplace Network began as an initiative of the Greater Milwaukee area but now represents 200 employers throughout the State of Wisconsin.

### **Legal Issues of Drug Testing**

The literature search revealed numerous cases and court rulings in various areas, including constitutional issues, equal opportunity laws, national labor relations, "just cause" and "wrongful discharge" litigation, and tort theories. Almost all the cases presented rule in favor of the protection of the rights of the drug tester.

In addition, two Supreme Court decisions in 1989 established a recognized basis for the procedural aspects of drug testing. As a result of these two decisions, issues relating to the accuracy and reliability of the testing technology are generally no longer raised in litigation.

### **Types of Testing Conducted**

In interviews with representatives of U.S. industry, it was found that a majority of firms enforced a comprehensive drug-testing policy that included preemployment, random, and postaccident testing. A small percentage of firms reported policies of only preemployment testing. Unions reported policies of no drug testing, citing health and safety standards as the key to reducing accidents.

A 1992 Survey by the American Management Association on Workplace Drug Testing and Drug Abuse Policies revealed that the growth in periodic or random testing has been especially dramatic—a tenfold increase since 1987. A majority of companies that perform periodic or random testing do so under government mandate.

### **Drug-Testing Program Design**

Several authors in the literature review stressed that when workplace drug-testing programs are being designed and implemented, emphasis should be placed on all substances that can affect one's mental clarity and thus work performance. They recommended that abuse of alcohol, prescription, and over-the-counter medications be addressed in workplace drug-testing protocols.

Our interviews with representatives of U.S. industry revealed that, of all substances detected in urine screens of M.O.S.T., over-the-counter and prescription medications were the most widely abused drugs.

### **Limitations of Drug Testing**

It should be noted that the presence of a substance in the urine indicates merely exposure to the drug, not necessarily intoxication, habituation, or addiction. Clearly, then, even when tests are accurate they do not reveal whether a person is an occasional or chronic abuser. For-cause tests, which are given after an accident or if an employee is behaving erratically, do not necessarily measure work impairment.

New technology could potentially overtake drug testing's central role in detecting performance problems. Objective computer tests would measure a much broader range of impairments than drug tests, including the effects of illness, stress, and fatigue.

Of particular interest is the fact that the American Management Association survey on workplace drug testing asked about performance testing for the first time since it was initiated in 1987. It found that 65 companies, or 5.4 percent of all respondents, reported the use of this nonmedical testing procedure. In addition, 50 of these firms combined performance testing with other methods.

## **OBSERVATIONS ADDRESSING WORKPLACE DRUG TESTING**

### **Increase In Drug Testing**

A survey released by the American Management Association in April 1993 revealed that among the firms it has surveyed since 1987, drug testing has increased 274 percent. The rate of increase, which leveled from 1989 to 1990, rose again due to the following: DOT and Department of Defense regulations that mandate testing for 23 percent of the firms surveyed, the practical effects of the Drug-Free Workplace Act, court decisions that recognize an employer's right to test both employees and job applicants, and action by insurance carriers to reduce accident liability and control health care costs.

It is worth noting that the growth in periodic or random testing has been especially dramatic—a tenfold increase since 1987. Furthermore, the majority of companies that perform periodic or random testing do so under Government mandate.

### **Cost-Effectiveness of Drug Testing**

The cost of a testing program is a function of the number of people tested. Expanding the test pool—i.e., instituting periodic or random testing—creates a dramatic increase in costs. Costs per testee average around \$40 for large firms and \$68 for smaller companies.

Although testing programs continue to increase in cost as well as reach, testing still does not represent a major corporate expenditure. Only a small percentage of companies that test have undertaken a cost-justification study of their testing programs. If testing costs continue to increase, it is probable that an increasing number of companies will study the cost-effectiveness of their programs.

### **The Possibility of Error**

Although improved technology has greatly reduced the risk of false positives in recent years, the possibility of error remains.

The majority of large companies and Federal Government agencies now perform confirmatory tests on initial positive results as well as a medical review of those that are confirmed. These secondary tests, which rely on more expensive and precise technology, are designed specifically to verify the presence of drugs picked up in the preliminary screening. They achieve near-perfect accuracy.

Smaller companies, however, are often reluctant to assume the expense of additional screening.

To reduce the possibility of error, increasing numbers of States now require all employers who conduct testing to provide confirmation of initial positive results. In the 1992 workplace drug-testing survey conducted by the American Management Association, however, a significant number of respondents did not follow the secondary procedure which involved a retesting of the positive sample with a more rigorous testing procedure. In addition, nearly 5 percent reported that they have no validation policy at all.

Finally, a recent study of intercollegiate athletes subject to mandatory drug testing found that some successfully avoided detection by taking diuretics, drinking large amounts of water, and using certain foods and drinks to disguise drugs in the urine.

### **Action on Test-Positive Employees**

The employees of Texas Instruments who test positive are referred to treatment through the EAP and are tested twice in the 8 months following treatment. A second positive test will result in dismissal.

Southern California Edison imposes a "two strike" rule on nuclear power plant workers. A positive drug test leads to a 14-day suspension, mandatory rehabilitation, and subsequent drug testing. A second one results in dismissal.

Johnson & Johnson also allows an employee a second chance and dismisses those employees who test positive after returning from treatment.

Tropicana Orange Juice takes a very tough approach involving widespread random, for-cause, and prepromotion testing. Any employee who tests positive is fired automatically.

In the American Management Association's 1992 survey on drug testing, 35 percent of respondent firms that test employees report that they dismiss test-positive employees, and just under half of these offer no other alternative. The rest regard firing as a policy of last resort, after counseling and disciplinary actions have been tried.

It is worth noting that drug testing is rarely a stand-alone policy in combatting drug use by employees. Education and awareness programs, supervisory training, and EAP's are credited with the steady decrease in test-positive rates since 1989.

### **Impact of Drug-Testing Procedures**

Much of the data on the impact of testing policies and procedures is still being evaluated. In the case of the boilermaking industry, an inherently dangerous profession, workers are now required to carry a drug-free certification card with them in order to enter the job site. Drug positive rates among boilermaker workers have decreased from 5 percent to one-half of 1 percent, with a decrease in accidents as well.

Most companies that engage in drug testing consider it to be an effective means of combatting substance abuse in the workplace. Companies that engage in drug testing but do not consider it effective tend to be smaller firms which also report a significantly higher cost per testee (\$68) than larger firms (\$40).

The strongest resistance to drug testing exists among unions, which are vigorously committed to protecting the rights and privacy of their worker membership. Among the AFL-CIO Building and Construction Trades, drug-testing policies are seen as unfounded employer suspicion of employee behavior. The union claims that if employers were as conscientious about testing for toxins in the workplace as they appear to be about testing workers for substance use, accident rates would be reduced significantly.

On the other hand, strong union support in favor of drug testing does exist in some sectors of the country. In Bradenton, Florida, for example, the local Teamsters are in favor of the stringent drug-testing program in place at the Tropicana Orange Juice Company. In addition, a surprising turnaround occurred at Johnson & Johnson when unions threatened to strike after the company instituted a random drug testing policy. However, after management held firm and stressed the connection between drug use and safety, the union leadership reluctantly agreed, particularly since Johnson & Johnson protected confidentiality and offered comprehensive treatment for those who test positive.

### **INDUSTRY PERCEPTIONS OF DRUG TESTING**

Interviews on drug testing in the workplace were held with representatives from U.S. industry. Representatives from the petroleum, construction, transportation, textile, and boilermaking industries, as well as Fortune 500 companies were asked about the motivations to drug test and the impact such testing procedures have had to date.

Reasons to test for drugs varied considerably. They included the need to comply with the Federal Drug-Free Workplace Act of 1988; desire to lower insurance payments; concern over surveys which revealed high drug-use rates in certain industries; response to OSHA drug-related accident data; global competition strategies; and basic safety concerns on the part of both employers and employees regarding standards within inherently dangerous work settings and professions, such as boilermaking.

## DRUG USE IN THE WORKPLACE AND THE EFFECTS OF DRUG TESTING

---

Unions reported policies of "no drug testing," citing health and safety standards as the key to reducing accidents. A small percentage of firms reported policies of only preemployment testing. A majority of firms enforced a comprehensive drug-testing policy that included preemployment, random, and postaccident testing.

Interestingly enough, while most firms indicated that alcohol was the drug of choice, only one industry (boilermaking) actually tested for alcohol impairment in the workplace. Test results revealed that major drugs of use in the workplace included marijuana, cocaine, and prescription medications. The textile industry reported that drug selling, not drug use, within the workplace was a more significant problem.

Costs of drug testing averaged \$40 per test, with the exception of an arrangement in which 16,000 construction-related firms combined their bargaining power to contract with a lab that charged \$24 per test and \$2.19 per employee per month for employee assistance services. On the whole, firms that conducted drug testing also offered employee assistance services.

The impact of testing policies and procedures on industry has been significant. However, much of the data is still being evaluated.

**APPENDIX A.**

**SAMPLE LETTER REQUESTING INFORMATION  
FROM NIDA CERTIFIED LABS**

## Sample Letter Requesting Information from NIDA Certified Labs

January 19, 1993

MetPath, Inc.  
One Malcolm Avenue  
Teterboro, NJ 07608

Attention: Mr. Chris Hoagland  
National Accounts Sales Representative

Dear Mr. Hoagland:

Recently you spoke with Ms. Cathy Freel, my research assistant, with respect to sharing information on workplace drug use and testing. I am writing to confirm that request and to supply additional details.

CSR, Incorporated is a research consulting firm based in Washington, D.C. We are currently under contract to the Office of National Drug Control Policy (ONDCP), an organization within the Executive Office of the President. ONDCP has asked us to examine drug testing in the workplace and related issues. Because of National Health Laboratories' experience in these research areas, I would be most appreciative if you would share with me material that reflects both the conceptual and the practical state-of-the-art in addressing workplace drug use and testing. I realize that some of these materials may not have been subjected to peer review. However, for our purpose the usefulness of the information will not thereby be diminished. Areas of particular interest are the following:

- Options for testing for drugs either singly or in combination;
- Unit cost per test, with quantity adjustments;
- Psychological and motor/coordination effects of drugs, by drug type; and
- Performance decrement by type of drug, intake level, and route of administration.

I realize that substantial controversy surrounds the last two items. However, these are issues that ultimately must be put to rest. Any findings, informed speculations or hypotheses, testable or not, that you can provide will be greatly appreciated. I can be reached at (202) 842-7600.

Thank you for your assistance.

Jack Wain

**APPENDIX B.**

**SAMPLE LETTER OF INTRODUCTION  
TO U.S. INDUSTRY REPRESENTATIVE**

## Sample Letter of Introduction to U.S. Industry Representatives

Associated Builders and Contractors  
729 15th Street, N.W.  
Washington, D.C. 20005

Attention: \_\_\_\_\_  
Health and Safety Officer

Dear \_\_\_\_\_:

CSR, Incorporated is a research consulting firm based in Washington, D.C. We are currently under contract to the Office of National Drug Control Policy (ONDCP), an organization within the Executive Office of the President. We wish to present ONDCP a balanced perspective of work place drug use issues as they are perceived by a variety of occupations and industries. We believe that the experiences of your association will provide a significant contribution. **We assure you complete anonymity if you so desire.**

I would be most appreciative if you would share with Mr. Gruberg your views and any material that reflects both the conceptual and the practical aspects of drug use and testing as they affect your members. I realize that some materials may not have been subjected to peer review. However, for our purpose the usefulness of the information will not thereby be diminished.

Thank you for giving us the opportunity for this interview.

If you have questions, I can be reached on (202) 842-7600, ext. 233.

Sincerely,

Jack Wain

**APPENDIX C.**

**INDUSTRY INTERVIEW PROTOCOL**

## WORKPLACE DRUG POLICY STUDY INTERVIEW GUIDE

1. Does the Association have any studies, surveys, working papers, or consultants' reports concerning the use of drugs in the workplace? If YES, are the reports available?
2. What activities in the workplace are most compromised by the use of drugs?
3. What specific occupations have the most problems with drug abuse in the workplace?
4. What drugs are presenting the most problems for your members?
5. Has there been a recent change in the "drug of choice" in the workplace?
6. Does the Association have an accepted drug testing policy for its members?
  - a. If YES, may we have a copy of this policy?
  - b. If YES, is drug testing for alcohol included?
7. Are any members mandated by law to have a drug testing program?
  - a. If YES, are there any laws the Association would like to see changed?
  - b. If NO to 7a, Would the members continue the same drug testing programs if there were no laws?

## Interview Guide *(continued)*

8. What is the general sentiment among member employees concerning drug testing?
9. Has there been a perceived increase or decrease in interest in drug testing among Association members?
10. Are any members reporting increasing or decreasing drug use in the workplace?
  - a. If YES, is this attributable to a drug testing policy?
  - b. If illicit drug use has gone down, has alcohol use gone up?
11. In terms of potential harm to members' business activity, which poses more of a threat, illicit drugs or alcohol?
12. What is the relationship of costs to benefits (in terms of dollars and cents) of drug testing for your industry?

**APPENDIX D.**

**REPORTS OF INTERVIEWS  
WITH U.S. INDUSTRY REPRESENTATIVES**

**American Bankers Association  
1120 Connecticut Ave.  
Washington, DC 20036**

The American Bankers Association (ABA) represents a large membership. However, \_\_\_\_\_ was only able to speak to the in-house membership which is about 442 employees. \_\_\_\_\_ indicated that the issue of drugs within this workplace is a small concern to her. Although she feels that the problem does exist she does not feel that it is nearly as great a problem as in the past. The drug of choice appears to be alcohol. \_\_\_\_\_ stated that the EAP services offered to employees is the method that this organization uses in order to address the problem. In general, \_\_\_\_\_ feels that the ones that are most affected by the problems of drug use are the employees that are less educated and have lesser paying positions in the association. She stated that an example would be those in the mail room.

\_\_\_\_\_ is more concerned about the problems of managed care and the cost of health insurance than with the problems that drug use may present. Her concern is that the programs offered to those with a drug problem may be eliminated due to the rising cost of these programs.

\_\_\_\_\_ feels that without treatment programs there can be little help for those suffering from an addiction.

\_\_\_\_\_ did not have any strong feelings about new or current legislation dealing with the problem of drug use in the workplace. In her opinion, the issue of drug use is much less apparent than it may have been in the past.

The American Bankers Association provides EAP services to their employees. Also, this association recently implemented a No Smoking policy among its in-house employees. \_\_\_\_\_ stated that the policy adopted by this organization dealing with the issue of drugs was done in order to maintain the safety and health of all their employees. She does not feel that drug use is on the increase, but rather on the decline.

**American Petroleum Institute (API)**  
**1220 L Street**  
**Washington, DC 20005**

In 1992, this association introduced pre-employment drug screening, in which every new employee must participate. However they do not have a policy established for employees who have been employed prior to 1992.

In 1985 an Employee Assistance Program was established in order to address the problems of alcohol and drug abuse in the work place. API is paying a fee to Beverly Anderson Associates to cover the cost of referrals for each employee and/or immediate family member. In general, API believes that the employees in this company have displayed a decrease in any drug and alcohol use. API attributes this to the following:

1. Higher Salary
2. Advanced Degrees
3. Checking of Employment References

API does not wish to introduce any new legislation in this area because they do not feel that it is needed. API also stated that an increase in general public awareness has contributed to the decrease in drug use in the organization. This organization has offered workshops in drug and alcohol education, and has discovered that there has been very little interest. As a result, this has been discontinued.

Employees at API are encouraged to talk with their supervisors about any addiction problems. They have encountered problems with "covering up" of addiction issues due to the fact that employees do not wish to identify and label their fellow employees. They are attempting to develop a better approach. In the Exit Interview, employees are asked directly if they had any knowledge of any one with whom they have worked who had an addiction problem. API has used this approach to address the sensitivity of this issue.

API was unable to comment on the policies of the members they represent. Although they represent many employees, they are not familiar with the individual policies within those organizations. API spoke only of the employees that they have in-house. This is estimated to be about 60 employees.

API spends about \$45.00 per employee on the pre-employment drug test. They do not test for alcohol. API does believe, however, that the drug of choice within this organization is alcohol. There is treatment available for those with this problem.

**American Road and Transportation Builders Association  
501 School Street  
Washington, DC 20024**

The American Road and Transportation Builders Association (ARTBA) has a membership of about 4,000. \_\_\_\_\_ was directly involved in the establishment of the substance abuse policies within this workplace. \_\_\_\_\_ provided CSR with a manual that explains how substance abuse issues are handled at ARTBA. The title of this manual is "Fighting Substance Abuse In the Workplace." \_\_\_\_\_ stated that this manual was sold to the Small Business Council and a reprinting was done. ARTBA uses the policies that were developed in keeping with Federal Government Regulations and they include the following:

- 1) Pre-employment drug testing
- 2) Random drug testing
- 3) Post-accident testing

ARTBA is a nation wide organization and the national federation of members includes eight divisions:

- 1) Planning and Design
- 2) Materials and Services
- 3) Manufactures
- 4) Education Division
- 5) Civil Engineers
- 6) Transportation Division (City, State, and Federal Officials)
- 7) Public and Private Vendors
- 8) Highway Contractors

\_\_\_\_\_ indicated that the *highway contractors* made up about 50% of the entire membership. It is also within this membership that he believes the most substance abuse occurs. ARTBA has not conducted any surveys concerning the use of drugs in the workplace. Their policies were the result of legislation that was "The Drug-Free Workplace Act of 1988."

\_\_\_\_\_ indicated that ARTBA would have introduced some sort of drug policy even without the establishment of the laws concerning this issue. Drug testing was introduced at ARTBA in order to: (1) address the problem; (2) decrease insurance payments; and (3) comply with regulations. \_\_\_\_\_ indicated that The Department of Transportation requires random drug testing and that there is conflict on this within the unions. \_\_\_\_\_ believes that the drug of choice is alcohol and that drugs in general are on the decline. Instead of introducing new laws that enforce a drug-free workplace, he would like to see the employee become more accountable instead of the contractor that he may work for. He does not believe that the laws are attempting to do this and until they do the issue will remain a problem.

ARTBA does provide EAP services to their employees. ARTBA does not have a No Smoking policy among all its membership even though some members may.

\_\_\_\_\_ indicated that a number of small businesses are exempt from exploring the issues of drugs in the workplace. He stated that a small business can be defined as an organization that is grossing under 17 million. As an industry ARTBA has adapted policies that they need in order to maintain the safety and health of their employees. It is interesting to note that within the in-house organization there does not exist a "No drug policy." The only reason that there is a No Smoking policy is due to the fact that DC fire codes require this.

**American Textile and Manufactures Institute (ATMI)**  
**1801 K Street**  
**Washington, DC 20005**

ATMI represents a large membership (about three-quarters of all textile mills). However, they do not have any policies available to them concerning the use of drugs within their membership. \_\_\_\_\_ indicated that there are numerous policies within the membership concerning the use of drugs and alcohol. He stated that the policies were developed in keeping with the Federal Government Regulations and they included the following:

- 1) Pre-employment Drug Testing (Testing for Cause)
- 2) Random Drug Testing
- 3) Accident Testing

ATMI spoke in reference to their in-house employees which total about 35. Within this association there is a pre-employment drug screen which all employees must take. There is no test or screen for alcohol. \_\_\_\_\_ stated that the American Disabilities Act (ADA) may not allow for such a test to be used by employers. The cost for the drug test is about \$40.00 per employee. \_\_\_\_\_ stated that the use of pre-employment drug testing has helped give the message that drugs will not be tolerated within this organization. ATMI has not conducted any studies or surveys concerning the use of drugs within this workplace. ATMI provides EAP services to their employees. They have an in-house policy for drugs and alcohol and a copy of the policy was provided. An Application for Employment was also provided where the drug screening test is indicated. ATMI has an in-house No Smoking policy as well.

In commenting on the policies of his membership, \_\_\_\_\_ stated that the Random Drug Screen is used infrequently. He indicated that this is the result of union problems and public relations problems. In general, ATMI's position is that drugs are on the decline. As an industry, ATMI has adapted policies to maintain the safety and health of their employees. These policies would have been implemented regardless of laws that may have mandated such policies. \_\_\_\_\_ believes that the drug problem within the organization and his membership still exists, and that the drug of choice is alcohol. He is also aware that marijuana and cocaine use continue to be a problem. ATMI has also experienced a problem with the selling of drugs within the work place. At this time, there is concern in this area and ATMI is attempting to explore ways in dealing with this problem.

\_\_\_\_\_ stated that it would be helpful to him if we could provide any summary or report concerning the types of policies that other industries may be using or attempting to implement. They are also interested in finding out more about treatment services available to those with an addiction problem in other organizations.

## **Associated Builders and Contractors [ADDRESS]**

The Associated Builders and Contractors (ABC) is a trade association comprising approximately 16,000 construction and construction related firms. Because of the magnitude of substance abuse problems in this industry, ABC has taken a strong stand in favor of drug testing in the workplace. The National Longitudinal Survey of Youth estimates that 12.9 percent of all 19 to 27 year old construction workers use drugs at work compared to a national average for all workers in this age category of 7 percent.

ABC has recently instituted (June, 1992) a first of its kind program for its members, called the "Drug Free Alliance." This program allows ABC member firms to implement drug testing programs at extremely low cost. ABC used the collective bargaining power of its 16,000 member firms to negotiate an arrangement with Laboratory Specialists Inc., National Medical Review Offices, Inc., and Vasquez Management Consultants. When an ABC member firm enrolls in the program, it can obtain drug testing (including Medical Review Officer test verification) for its employees at a cost of \$24.00 per employee per test. For an additional cost of \$2.19 per month per employee, the firm can purchase an Employee Assistance Program (EAP) for its employees, providing them professional assessment and referral services.

Many of ABC's members are small businesses often operating on one to two percent profit margins. Such firms tend not to be enthused about paying for the added cost of employee drug testing—a cost which typically runs from \$60 to \$100 per test per employee. Consequently, although most construction firms currently have post-accident drug testing protocols, many do not have pre-employment and random employee testing procedures. ABC believes that the affordability of drug testing through the Alliance will induce many of its members to implement full drug testing programs (pre-employment, random testing, and post-accident testing). The Alliance has been commended both by Robert Martinez, former director of ONDCP, and by Michael Walsh, director of the President's Drug Advisory Council.

Drug testing through the Alliance is initially performed using the Enzyme Multiplied Immunoassay Test (EMIT). If the EMIT results are negative, the test is complete. If the results are positive, Gas Chromatography/Mass Spectrometry (GC/MS) is next used to identify the presence of a specific drug. The following drug categories are tested in the Alliance program: marijuana and cocaine metabolites, opiates, phencyclidine, and amphetamines. The service includes a "random selection service," providing the subscribing member with a list of employees to be tested each month.

ABC has not performed any studies measuring drug use in the workplace but it anticipates having some data on this issue in the next 6 months to a year, as a result of the implementation of the Alliance program. It is believed, however, that marijuana and cocaine (in that order) are the most prevalent drugs currently being used in this industry.

ABC is lobbying against the current OSHA reform legislation before Congress because the bill does not include any drug testing requirements.

**Building and Construction Trades Department, AFL-CIO**  
**[address]**

The Building and Construction Trades Department of the AFL-CIO represents approximately 2.5 million construction workers. As this association represents union workers rather than employers, its perspective on workplace drug abuse policy is very different from that of the Associated Builders and Contractors, and focuses on the protection of workers' rights and privacy.

The Department maintains that very few workplace accidents are in fact drug or alcohol related, and that in nearly all instances such accidents involve a violation of OSHA standards by the employer including "failure to designate competent supervision, inadequate planning, lack of training of employees, unsafe equipment and working conditions, and impairment and illness caused by toxic substances and materials used in the construction process." The Department questions whether the same owners and contractors advocating drug testing are, for example, testing their workplaces for toxic materials.

The Department further maintains that drug testing when imposed as a condition of employment or as a safety rule is a mandatory issue of collective bargaining under the National Labor Relations Act. Once a drug policy has been agreed upon through the collective bargaining process between labor and management, it must apply equally to all employees including supervisory and management personnel.

Finally, the Department considers random testing impermissible and maintains that before any testing is performed, reasonable cause should first be established by a health care professional to suggest that the employee is impaired on the jobsite and that "workplace substances are not the cause of the alleged impairment." Once the testing is performed, it must be done by a qualified lab (the definition of the term "qualified" is unclear), and the employee must be given the right to independent retesting by a lab of his or her choice.

In January of 1987, the Department adopted a Safety, Health, and Substance Impairment Resolution, outlining the policy discussed above. It should be noted, however, that the Building and Construction Trades Department of the AFL-CIO has many members working on federal contracts, many of which require employee drug testing in a manner inconsistent with this policy resolution. The Department, however, is not currently lobbying to change these federal laws.

Concerning the Department's claim that few workplace accidents are shown to involve drugs or alcohol (a claim incorporated into the Resolution), \_\_\_\_\_ reported that this information came from NIOSH (National Institute for Occupational Safety and Health). The only data NIOSH has on this issue, however, relates to fatalities, not accidents in general. Furthermore, such data do not come from "definitive" studies per se, but simply from medical examiner data obtained from particular counties across the country. Since drug testing is costly, medical examiners only test approximately 50 percent of such accident related fatalities for drugs, making case by case "judgement calls" as to whether testing is appropriate. Hence, such data may not be appropriate for scientific studies.

\_\_\_\_\_ pointed out that one problem with studies purporting to establish a reduction in accidents after the implementation of a drug testing program is that most employers

simultaneously implement a health and safety program along with the drug testing program. Hence it is not always clear which procedure in fact causes the reduction in accidents. He did acknowledge that his industry's biggest problem concerning drugs is with alcohol, although he did not go so far as to say that he considered alcohol abuse a problem for his industry. He also pointed out that most of the members of his union are in lifetime careers and their behavior patterns may differ from individuals working for contractors belonging to ABC, which is for the most part nonunion. He stated that ABC has many firms employing people who were not able to get into the apprenticeship programs of his union. These employees are often younger, less skilled, frequently part-time or temporary (such as students) and less likely to make the construction trades a lifetime career.

## **Institute for a Drug Free Workplace [address]**

The Institute for a Drug Free Workplace is an independent nonprofit coalition of businesses and business organizations devoted to reducing drug abuse in the workplace. The Institute was created in 1989 and includes about half of the Fortune 500 companies, as well as other smaller firms.

In terms of pending legislation, four Bills were discussed: the Hatch Bill, the OSHA Reform Bill, the Dingle Blyghly (spelling?) Bill (HR33), and the Transportation Amendment which will reduce FAA requirements for random testing.

The Hatch Bill, among other things, regulates drug testing labs, requiring a standard chain of custody for all labs. \_\_\_\_\_ does not think that this Bill will pass because it preempts many state laws restricting private sector drug testing.

The OSHA Reform Bill as it stands does not have any requirements for employee drug testing by employers, although various organizations (ABC) are lobbying to change this. It is possible that this Bill will pass with some drug testing requirements tacked on to it.

It is more likely that the Dingle Blyghly Bill (HR33) will pass. This Bill extends NIDA testing guidelines to the private sector. It will be a boon for NIDA certified labs, since the other labs will either have to become NIDA certified or get out of the employee drug testing business. In terms of drug testing in the workplace, HR33 will probably have no effect on large businesses. Small businesses, however, will have to decide how committed they are to drug testing, since testing will become more costly to those that are currently using noncertified labs.

The Transportation Amendment would reduce the amount of FAA required random testing from 50 percent to 10 percent. As it stands, the Bill probably will not pass, but there is a good chance that this Bill will pass in modified form. For example, the required testing percentage may be reduced to 20 or 30 percent of the workforce.

As far as state laws are concerned, the Institute believes that "the groundwork is in place for pro-testing legislation in several states for 1993, including Arizona and Virginia" (Drug Free Workplace Report, Fall 1992).

Since drug testing is so much less prevalent in small businesses than in large companies, \_\_\_\_\_ was asked whether the major deterrent to small firms was employee resistance or the cost of testing. He replied "neither." He stated that other factors were more important, including the recession (not because of the cost of testing), and their general attitude toward their employees. As a result of the recession, many corporate executives, particularly in the last five years, are being spread very thin and are being assigned a multitude of job responsibilities. The same individual may be responsible for a pension plan, payroll, worker safety, etc. This type of executive is less likely to want to take on another responsibility if it is not perceived to be necessary. Also, there is a perception among small businesses that they have direct control over their employees and that they know what is best for them. \_\_\_\_\_ believes that, in general, small businesses interested in drug testing will always tend to be those with safety sensitive jobs.

**M.O.S.T.**  
**[address]**

Mobilization, Optimization, Stabilization, and Training (M.O.S.T.) is a joint labor/management trust between the International Brotherhood of Boilermakers and the National Association of Construction Boilermakers Employers. The organization represents approximately 32,000 workers domestically, all of whom belong to the AFL-CIO. These workers work in the presence of large pressure vessels, often in petrochemical refineries and utility companies, performing "heavy welding" and "heavy rigging" activities. The profession is inherently dangerous, and often requires workers to perform activities several hundred feet off the ground.

The impetus behind M.O.S.T. is the need for the boilermakers to ensure a high quality workforce for the industries they serve (from a global standpoint, the field is extremely competitive with particularly strong competition from Europe and Japan). M.O.S.T. offers apprenticeship and certification programs for boilermakers and is committed to providing a safe and cost effective workplace (hence its drug testing program).

All of the 32,000 domestic boilermakers belonging to the International Brotherhood are drug tested through M.O.S.T.'s drug testing program. This includes pre-employment testing, random screening, and post-accident testing. All workers need a "drug-free" certification card to get onto the jobsite, and are screened for the following drugs: amphetamines, barbituates, cocaine metabolites, cannabinoids, methaqualone, opiates, phencyclidine, benzodiazepines, methadone, and alcohol. Random screening is performed based on the requirements of the owner at each jobsite. It is interesting to note how extensive drug testing is in this occupation in light of the fact that all of these workers are also affiliated with the Building and Construction Trades (BCT) Department of the AFL-CIO. The 1987 BCT policy resolution on drug testing states that drug testing should only be performed when there is cause to believe that the worker has become impaired from drug use.

M.O.S.T.'s drug testing program grew from a pilot study performed in 1987 for Dayton Light and Power. Accident and injury reports for the company were examined, and it was concluded that at least some of the accidents involved the use of illegal drugs. Pre-employment drug testing was then initiated for the company, and it was found that about five percent of workers were testing positive. Out of this study, a ten hour course in hazard recognition was then developed and a drug testing program implemented both under the aegis of M.O.S.T.'s Safety Awareness Hazard Recognition Program. Now only 1/2 of one percent of M.O.S.T.'s workers are testing positive for drugs and the organization's worker accident rate has fallen from 15.5 accidents per hundred workers per year to 7 (seven is still considered high for the industry). The lost time injury rate dropped from 13.54 in 1990 to 8.42 in 1991. Today, the drugs that are most commonly detected in workers are mostly legal drugs taken illegally, such as muscle relaxants, valium, and prescription medications (such as, Tylenol No. 3).

The only instances where members are required by federal law to perform drug testing would be in cases where the jobsite is a military base. M.O.S.T. is in favor of Senator Hatch's bill which would regulate testing labs and provide for a standard chain of custody procedure for all labs. Different custody procedures from different labs creates a burden for M.O.S.T. which must process the information. Organizations such as M.O.S.T. tend to encourage the desire for drug

testing by owners, since it relieves them of the burden of confidentiality, placing it instead on the labor-management umbrella organization.

As far as general worker sentiment is concerned, \_\_\_\_\_ indicated that at the last worker conference, only 11 out of the approximately 1200 workers attending were opposed to the drug testing. There is an understanding that the industry must be as competitive as possible in order to survive the competition from abroad. Since the M.O.S.T. program has only been in place for two years, it is really too early to determine its impact on cost savings to the industry (insurance rates have yet to be adjusted). It is clear, however, that the M.O.S.T. program allows owners to drug test these workers at a rate much lower than what they would pay by themselves. M.O.S.T. estimates that it saved Dayton Light and Power approximately \$200,000 dollars in drug testing costs. These savings result both from the fact that M.O.S.T. is able to test its workers at a fairly low rate (presumably based on contractual arrangements it has with its testing labs) and from the fact that some of this cost is shouldered by the worker.

Other trade organizations have adopted programs similar to M.O.S.T. For example, the Tri-State Building Trades (an organization which covers Kentucky, Ohio, and West Virginia) has adopted a similar program for its members who include pipe fitters, ironworkers, and carpenters.

**Rubber Manufacturers Association (RMA)  
1400 K Street, N.W.  
Washington, DC 20005**

RMA does not offer any EAP services to their employees. The issue of addiction is handled by the supervisor of the employee. RMA has not introduced any pre-employment drug testing. They have a policy for drugs and alcohol and a copy of the policy was provided. RMA was unable to discuss the policies of the members they represent. Although this is a large organization, they have no access to the policies of their members, nor do they determine the policies.

RMA spoke in reference to their in-house employees only. At the present time, they employ about 25 staff. Within the last year they lost about half of their staff due to budget cuts.

RMA has never conducted any drug surveys to identify this problem within this organization. In general, they believe that their staff does not display any difficulty in this area. With respect to a possible change in policy, RMA is in the process of reviewing their drug and alcohol policy. They have considered initiating pre-employment drug testing but have been advised by their legal advisor to not do so, because of the possible legal complications. \_\_\_\_\_ stated that he has counseled two employees with an alcohol problem in the past five years. Of the two, one was terminated due to poor job performance. The other is viewed as a valuable employee and is in recovery. He has, however, suffered two relapses in the last year. \_\_\_\_\_ believes that among the lower salaried employees there is more concern in this area. In his experience, he has been able to identify this group as a possible higher risk group. RMA has in place a no smoking policy and \_\_\_\_\_ believes that this has helped, in an indirect way, to deal with some of the addiction issues.

RMA is most interested in the policies of other organizations. They are also interested in finding out more about treatment services available to those with an addiction problem in other organizations. RMA offers treatment for their employees, up to thirty days. They are also supportive in the recovery process and are willing to adjust the schedule of the employee who may need to attend a meeting during working hours.

**APPENDIX E.**

**BIBLIOGRAPHY**

**BIBLIOGRAPHY**

American Medical Association Council on Scientific Affairs. 1987. "Scientific Issues in Drug Testing." *Journal of the American Medical Association* 257(22):3110-3114.

Axel, H. 1989. "Characteristics of Firms with Drug Testing Programs." In Gust, S.W., Walsh, J.M., Thomas, L.B., and Crouch, D.J., eds. *Drugs in the Workplace: Research and Evaluation Data* (91)(DHHS Publ. No. ADM89-1612). Washington, DC: Government Printing Office, 219-226.

Bickel, W.K., Higgins, S.T., and Hughes, J.R. 1990. "Development of Repeated Acquisition Methodologies: Implications for the Detection of Drug-Induced Disruption in Human Learning." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 99-111.

Bray, R.M., Marsden, M.E., Rachai, J.V., and Peterson, M.R. 1990. "Drug and Alcohol Use in the Military Workplace: Findings from the 1988 Worldwide Survey." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 25-43.

Clark, H.W. 1990. "The Role of Physicians as Medical Review Officers in Workplace Drug Testing Programs. In Pursuit of the Last Nanogram." *Western Journal of Medicine* 152(5):514-524.

Cook, R.F. 1989. "Drug Use among Working Adults: Prevalence Rates and Estimation Methods." In Gust, S.W., Walsh, J.M., Thomas, L.B., and Crouch, D.J., eds. *Drugs in the Workplace: Research and Evaluation Data* (91)(DHHS Publ. No. ADM89-1612). Washington, DC: Government Printing Office, 17-32.

Crow, S.M., and Hartman, S.J. 1992. "Drugs in the Workplace: Overstating the Problems and the Cures." *The Journal of Drug Issues* 22(4):923-937.

Fretthold, D.W. 1990. "Drug-Testing Methods and Reliability." *Journal of Psychoactive Drugs* 22(4):419-428.

Goldstein, A. 1991. "Heroin Addiction: Neurobiology, Pharmacology, and Policy." *Journal of Psychoactive Drugs* 23(2):123-133.

Gust, S.W., Crouch, D.J., and Walsh, J.M. 1990. "Research on Drugs and the Workplace: Introduction and Summary." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 3-8.

Gust, S.W., and Walsh, J.M. 1989. "Research on the Prevalence, Impact, and Treatment of Drug Abuse in the Workplace." In Gust, S.W., Walsh, J.M., Thomas, L.B., and Crouch, D.J., eds. *Drugs in the Workplace: Research and Evaluation Data* (91)(DHHS Publ. No. ADM89-1612). Washington, DC: Government Printing Office, 3-13.

**Bibliography (continued)**

- Hayghe, H.V. 1991. "Anti-Drug Programs in the Workplace: Are They Here to Stay?" *Monthly Labor Review* April:26-29.
- . 1990. "Survey of Employer Anti-Drug Programs." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 177-207.
- Hecker, S., and Kaplan, M.S. 1989. "Workplace Drug Testing as Social Control." *International Journal of Health Services* 19(4):693-707.
- Heishman, S.J., and Henningfield, J.E. 1990. "Application of Human Laboratory Data for the Assessment of Performance in Workplace Settings: Practical and Theoretical Considerations." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 167-174.
- Jensen, G.A., and Morrissey, M.A. 1991. "Employer Sponsored Insurance Coverage for Alcohol and Drug Abuse Treatment, 1988." *Inquiry* 28:393-402.
- Klotz, G.W. 1990. "Drug Testing in the Workplace: Mechanics and Legality." *Employee Assistance Quarterly* 5(4):33-48.
- Konovsky, M.A., and Cropanzano, R. 1991. "Perceived Fairness of Employee Drug Testing as a Predictor of Employee Attitudes and Job Performance." *Journal of Applied Psychology* 76(5):698-707.
- Kopstein, A., and Groerer, J. 1990. "Drug Use Patterns and Demographics of Employed Drug Users: Data from the 1988 National Household Survey on Drug Abuse." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 11-24.
- Labig, C.E. 1992. "Supervisory and Non-supervisory Employee Attitudes about Drug Testing." *Employee Responsibilities and Rights Journal* 5(2):131-141.
- Lehman, W.E., and Simpson, D.D. 1990. "Patterns of Drug Use in a Large Metropolitan Workforce." In Gust, S.W., and Walsh, J.M., eds. *Drugs in the Workplace: Research and Evaluation Data* (100)(DHHS Publ. No. ADM91-1730). Washington, DC: Government Printing Office, 45-62.
- Linn, L.S., Yager, J., and Leake, B. 1990. "Professional vs. Personal Factors Related to Physicians' Attitudes toward Drug Testing." *Journal of Drug Education* 20(2):95-109.
- Malone, M.P. 1991. "Drug Tests on the Job." *Traffic Safety* 91(1):6-9.
- Manley, S.A., and Gibson, G.S. 1990. "Drug-Induced Impairment: Implications for Employers." *Psychology of Addictive Behaviors* 4(2):97-99.

### Bibliography (continued)

- McCunney, R.J. 1989. "Drug Testing: Technical Complications of a Complex Social Issue." *American Journal of Industrial Medicine* 15(5):589-600.
- Murphy, K.R., and Thornton, G.C. 1992. "Characteristics of Employee Drug Testing Policies." *Journal of Business and Psychology* 6(3):295-309.
- Murphy, K.R., Thornton, G.C., and Prue, K. 1991. "Influence of Job Characteristics on the Acceptability of Employee Drug Testing." *Journal of Applied Psychology* 76(3):447-453.
- National Institute on Drug Abuse (NIDA). 1988. *Medical Review Officer Manual* (DHHS Publ. No. ADM88-1526). Rockville, MD: National Institute on Drug Abuse.
- Newcomb, M.D. 1988. *Drug Use in the Workplace: Risk Factors for Disruptive Substance Abuse among Young Adults*. Dover, MA: Auburn House Publishing Company.
- Normand, J., Salyards, S.D., and Mahoney, J.J. 1990. "An Evaluation of Pre-Employment Drug Testing." *Journal of Applied Psychology* 75(6):629-639.
- Normand, J., and Salyards, S.D. 1989. "An Empirical Evaluation of Preemployment Drug Testing in the United States Postal Service: Interim Report of Findings." In Gust, S.W., Walsh, J.M., Thomas, L.B., and Crouch, D.J., eds. *Drugs in the Workplace: Research and Evaluation Data* (91)(DHHS Publ. No. ADM89-1612). Washington, DC: Government Printing Office, 111-138.
- Osterloh, J.D., and Becker, C.E. 1990. "Chemical Dependency and Drug Testing in the Workplace." *Journal of Psychoactive Drugs* 22(4):407-417.
- Price Waterhouse. 1992a. *Substance Use and the Alberta Workplace: The Prevalence and Impacts of Alcohol and Other Drugs. Appendices to the Final Report*. Prepared at the request of the Alberta Alcohol and Drug Abuse Commission. Edmonton: Alberta, Canada.
- . 1992b. *Substance Use and the Alberta Workplace: The Prevalence and Impacts of Alcohol and Other Drugs. Final Report*. Prepared at the request of the Alberta Alcohol and Drug Abuse Commission. Edmonton: Alberta, Canada.
- . 1992c. *Substance Use and the Alberta Workplace: The Prevalence and Impacts of Alcohol and Other Drugs. Summary Report*. Prepared at the request of the Alberta Alcohol and Drug Abuse Commission. Edmonton: Alberta, Canada.
- Reynolds, J.L., McGovern, P.M., Kochevar, L., Olson, D.K., and Hibbs, B.F. 1991. "Minnesota Workplace Drug Testing. Analysis of Policy and Procedures." *American Association of Occupational Health Nurses Journal* 39(11):523-533.
- Rice, D.P., Kelman, S., Miller, L.S., and Dunmeyer, S. 1990. *The Economic Costs of Alcohol and Drug Abuse and Mental Illness: 1985*. San Francisco, CA: Institute for Health and Aging, University of California at San Francisco.

**Bibliography (continued)**

Rosse, J.G., Crown, D.F., and Feldman, H.D. 1990. "Alternative Solutions to the Workplace Drug Problem: Results of a Survey of Personnel Managers." *Journal of Employment Counseling* 27(2):60-75.

Scanlon, W.F. 1991. *Alcoholism and Drug Abuse in the Workplace: Managing Care and Costs through Employee Assistance Programs*. New York, NY: Praeger.

Sheridan, J., and Winkler, H. 1989. "An Evaluation of Drug Testing in the Workplace." In Gust, S.W., Walsh, J.M., Thomas, L.B., and Crouch, D.J., eds. *Drugs in the Workplace: Research and Evaluation Data* (91)(DHHS Publ. No. ADM89-1612). Washington, DC: Government Printing Office, 195-216.

Sidney, S. 1991. "Preemployment Drug Screening and Employment Outcome." *Journal of the American Medical Association* 265(11):1392-1393.

SmithKline Beecham Clinical Laboratories. 9/14/92a. "SmithKline Beecham Drug Testing Index Shows High Positive Post Accident Drug Tests." King of Prussia, PA: SmithKline Beecham Clinical Laboratories.

———. 2/10/92b. "SmithKline Beecham Index Shows Drug Use Decline for Fifth Straight Year." King of Prussia, PA: SmithKline Beecham Clinical Laboratories.

———. 7/90. *The Testing of Urine Specimens for Drug Abuse—Background Information*. King of Prussia, PA: SmithKline Beecham Clinical Laboratories.

U.S. Department of Health and Human Services. 1991. *Drug Abuse and Drug Abuse Research. The Third Triennial Report to Congress from the Secretary of the Department of Health and Human Services* (DHHS Publ. No. ADM91-1704). Washington, DC: Government Printing Office.

U.S. Department of Labor. 1991. *What Works: Workplaces Without Alcohol and Other Drugs*. Washington, DC: Government Printing Office.

———. 1989. *Survey of Employer Anti-Drug Programs* (760). Washington, DC: Government Printing Office.

# **INTERNATIONAL DRUG CONSUMPTION ESTIMATES**

*Submitted to:*

**Office of National Drug Control Policy  
Executive Office of the President  
750 17th Street, N.W.  
Washington, DC 20500**

*Submitted by:*

**CSR, Incorporated  
Suite 300  
1400 Eye Street, N.W.  
Washington, DC 20005**

**July 9, 1993**

# **INTERNATIONAL DRUG CONSUMPTION ESTIMATES**

*Submitted to:*

**Office of National Drug Control Policy  
Executive Office of the President  
750 17th Street, N.W.  
Washington, DC 20500**

*Submitted by:*

**CSR, Incorporated  
Suite 300  
1400 Eye Street, N.W.  
Washington, DC 20005**

**July 9, 1993**

---

---

# TABLE OF CONTENTS

---

---

<b>INTRODUCTION</b> .....	<b>1</b>
<b>DRUG ESTIMATION METHODS</b> .....	<b>3</b>
<b>SOURCES</b> .....	<b>3</b>
<b>METHODS OF DATA COLLECTION</b> .....	<b>5</b>
<b>ESTIMATION METHODS</b> .....	<b>7</b>
Prevalence .....	7
Population-Based Estimates .....	8
<b>SELF-REPORTED DATA</b> .....	<b>8</b>
<b>CONSUMPTION PATTERNS AND TRENDS</b> .....	<b>9</b>
<b>HEROIN</b> .....	<b>9</b>
<b>COCAINE</b> .....	<b>9</b>
<b>CANNABIS</b> .....	<b>10</b>
<b>SUMMARY</b> .....	<b>10</b>
<b>RECOMMENDATIONS</b> .....	<b>12</b>
<b>REFERENCES</b> .....	<b>13</b>
<b>NARRATIVE AND TABLES</b> .....	<b>15</b>
<b>ASIA</b> .....	<b>16</b>
<b>THAILAND</b> .....	<b>17</b>
<b>CENTRAL AND SOUTH AMERICA</b> .....	<b>18</b>
<b>BOLIVIA</b> .....	<b>19</b>
<b>BRAZIL</b> .....	<b>20</b>
<b>CHILE</b> .....	<b>21</b>
<b>COLOMBIA</b> .....	<b>22</b>
<b>COSTA RICA</b> .....	<b>23</b>
<b>DOMINICAN REPUBLIC</b> .....	<b>25</b>
<b>ECUADOR</b> .....	<b>26</b>
<b>GUATEMALA</b> .....	<b>28</b>
<b>PERU</b> .....	<b>29</b>
<b>EUROPE</b> .....	<b>30</b>
<b>DENMARK</b> .....	<b>31</b>
<b>FRANCE</b> .....	<b>32</b>
<b>GERMANY</b> .....	<b>33</b>
<b>ITALY</b> .....	<b>34</b>
<b>NETHERLANDS</b> .....	<b>35</b>
<b>SPAIN</b> .....	<b>36</b>
<b>SWEDEN</b> .....	<b>37</b>
<b>UNITED KINGDOM</b> .....	<b>39</b>

NORTH AMERICA .....	41
CANADA .....	42
MEXICO .....	44
OCEANIA AND AUSTRALIA .....	45
AUSTRALIA .....	46
CARIBBEAN .....	47
JAPAN .....	49
PHILIPPINES .....	50
GLOSSARY .....	51

---

---

## INTRODUCTION

---

---

This report presents estimates of the consumption of cocaine, marijuana, and heroin for those countries concentrated primarily in Asia, Europe, and South America that are identified by the Office of National Drug Control Policy (ONDCP) as high-priority areas. CSR, Incorporated's approach to gathering and developing these estimates of drug consumption involved a review of officially recognized data from national and international sources and research programs. Every attempt was made to include the latest available statistics from health, justice, prevention, and treatment sources. Official country or international reports often are unavailable or provide only a partial picture of drug use in each country. Therefore, research accounts or anecdotal data are occasionally used in this report to more accurately describe levels of drug usage. Recommendations for using these types of data are provided in this report.

Estimates reported represent a snapshot of the most recent and reliable drug consumption statistics available for each country. Findings are reflected in tables containing consumption estimates and are prefaced by brief narratives. The narrative for each country describes drug use trends, data collection efforts, and production or transit activities that may affect consumption. Anecdotal information indicating drug use levels is included in the narrative when this information complements incomplete official data.

Information about drug use in each country was gathered by reviewing a wide variety of literature. A list of sources consulted accompanies each narrative and table. The sources were selected from the comprehensive literature review submitted by CSR on March 16, 1993—Annotated Bibliography of Studies and Research on International Drug Consumption and International Drug Laws—as well as from newly released or newly acquired reports from individual countries.

The narrative descriptions of each country often highlight different indicators of drug use. Each country sets its own objectives for data collection and chooses its own methodology. The data (or lack of data) may reflect the national attention placed on controlling illicit drug use, the nation's concern for the health risks of drugs in its population, and the resources available within the country for studying drug use. The data within countries and among groups of countries vary widely and are not suitable for comparison. Each drug use study varies in its methodology, sample selection, administration, and analysis. In addition, all figures listed are estimates and should be viewed as approximate.

This report includes a description of the main data sources and organizations responsible for data collection internationally. Indicators of drug use were extracted from these international sources, as well as from reports produced by individual governments. Methods of data collection are described, and brief notations are included on each method's data limitations. This report includes an explanation of drug consumption estimation methods as well. It is important to note that this report lists drug use findings by many different groups among which methodology may vary widely.

Finally, we have included a summary of observed drug use trends, by drug type, for each region, when available. National surveys have been conducted only once in most countries. National surveys need to be standardized and repeated periodically to increase the availability and reliability of trend data.

---

---

## DRUG ESTIMATION METHODS

---

---

### SOURCES

Estimates of drug use for individual countries are generally reported by national government authorities. In some cases, international organizations are responsible for funding studies and for providing methodological guidelines for implementation of the data collection efforts.

The Inter-American Drug Abuse Control Commission (CICAD) of the Organization of American States (OAS) is working to establish a uniform statistical system in order to build an inter-American data bank. This system will centralize collection and processing of statistical data on health, work, education, and other aspects of living environments to assess vulnerability, exposure, and consequences of health practices including drug use. CICAD has funded many of the national surveys undertaken in South American countries as a basis for establishing data collection guidelines. South American countries in which national studies have been conducted and are used in this CICAD-funded report include Costa Rica, the Dominican Republic, Guatemala, Honduras, and Nicaragua.

The Pan American Health Organization (PAHO), a division of the World Health Organization (WHO), monitors studies of the epidemiology and health effects of drug abuse. Concerned that the rapid spread and pervasiveness of drug use has caught countries unprepared, PAHO's objective is to strengthen knowledge in the drug abuse field in order to increase each government's capacity for combating the problem. PAHO has gathered and published information on 16 countries in Latin America and the Caribbean. The PAHO reports include epidemiologic data on each country and highlight methodology used for data collection in individual countries.

WHO collects and monitors information on drug abuse produced by individual European countries. Its European Summary on Drug Abuse (ESDA) was established in 1989 to summarize existing information on drug consumption trends, problems linked to consumption, and social responses to drug abuse; to promote standardization or harmonization of data collection; and to collect and disseminate information at a European level to facilitate improved monitoring of the regional health plan related to drug abuse. The first ESDA report includes information from 1985 to 1990 only. Trend data reported by the ESDA will, therefore, exclude 1991 through 1993.

The United Nations Economic and Social Council and the United Nations International Drug Control Programme collect data on drug use from government reports of 81 countries. Their 1992 report includes information up to 1990. Annual and daily prevalence data for cannabis, cocaine, and heroin are provided, along with the number of registered abusers. Data collected from individual countries are based on sources—such as health records, police records, and surveys—and other estimations.

The Community Epidemiology Work Group (CEWG), a network of researchers from major metropolitan areas of the United States and selected foreign countries, is organized under the auspices of the U.S. National Institute on Drug Abuse to provide ongoing, community-level surveillance of international drug abuse. CSR used data collected by CEWG that focused primarily on drug-related deaths, drug-related emergency room episodes, primary substance abuse among treatment admissions, arrestee urinalysis results, and other city-specific data. These data recently have been standardized and weighted so that, beginning in June 1991, data are more easily comparable and will be suitable for trend analysis as more years of data become available. International reports presented by the CEWG vary each year. The CEWG 1992 report contains epidemiologic findings for five Asian cities, Canada, Germany, Great Britain, Italy, Latin America, Mexico, Nigeria, Spain, and Thailand.

The Pompidou Group, formally known as the Council of Europe's Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs, has formed a multicity Expert Epidemiology Group. The group is currently studying the development of drug treatment reporting systems and the first treatment demand indicator. Eleven cities are involved in this study: Amsterdam, Barcelona, Copenhagen, Dublin, Geneva, Lisbon, London, Paris, Rome, Stockholm, and Zurich. The group has undertaken a census of clients in treatment and a survey of the number, types, and coverage of treatment centers in each city. Most of the treatment data reported for European countries was provided by the Pompidou studies. Statistics from this group did not include prevalence estimates based on survey data for most countries. The groups' focus is on other indicators of drug abuse, including drug seizures, price and purity, arrest data, treatment admissions, and health indicators (i.e., AIDS [acquired immune deficiency syndrome], drug-related death, and hepatitis). Despite the organized data collection efforts, there are large gaps in prevalence statistics available for the European community.

The U.S. Agency for International Development's Narcotics Awareness and Education (NAE) project sponsors research in collaboration with local authorities. The Dominican Republic conducted its 1992 Survey on Drug Prevalence and Attitudes through a collaboration of NAE, the Universidad Autonoma de Santo Domingo, and two local agencies. The purpose of this research is to lay the foundation for future drug use interventions.

Our review found no recent, official data on the use of cannabis, cocaine, or heroin for most of Asia, the newly formed Commonwealth countries, or the former Soviet Union. Data for the use of other drugs (i.e., methamphetamines) and alcohol are available from some countries in these regions.

---

---

## METHODS OF DATA COLLECTION

---

---

Quantifiable data that are indicative of drug use can be gathered from a variety of sources in several different forms. The following is a brief discussion of some of the more commonly used methods of collecting and reporting data on drug use. It is not an exhaustive list. CSR used survey data and treatment data as indicators of drug consumption. Appropriate uses for each type of drug use indicator listed are discussed briefly below.

*Survey data.*—Estimates of drug use are based on a one-time survey of a sample population. Findings from the survey are used to draw conclusions about the entire target population. The target population may be the entire national population or a subgroup of the population from specific cities or age groups. Findings are generally reported as estimates of prevalence and number of users.

Common populations studied in drug use surveys include household inhabitants, criminal justice populations, city or urban populations, students, and street youth. It is important to note the limitations of each survey type. Most national surveys use household populations in primarily urban communities. Household surveys exclude institutionalized and homeless persons, thereby excluding typical heavy drug-using populations. Because drug use is commonly higher in urban areas, city surveys may lead to slightly elevated estimates. Student surveys exclude dropouts and those frequently absent from school; however, they provide valuable data on initiation of drug use.

Drug use surveys most often rely on self-reported use. Considerations related to self-reports are described on page 8.

*Seizure data.*—Data on seizures of illicit drugs are provided by local and national law enforcement officials. Seizure information may be reported as actual quantities confiscated or by street market value. Seizure data show levels of government interdiction but are not reliable estimators of drug use because the ultimate destination and purpose of the drugs seized are unknown. While in some cases, accounts of drug seizures have been tied to accounts of national drug-using populations, in most cases seizure data did not prove useful for this study and were, therefore, excluded.

*Price/purity information.*—Based on drug seizures and street buys, the purity of each substance is assessed and compared with the current market price. These data are useful in estimating supply and demand for each substance but are not indicative of drug-using populations.

*Arrest data.*—Surveys of arrestees and urine specimens for drug testing provide data on use of drugs among criminal populations. Data may be gathered on juveniles as well as adults. Arrest data seldom distinguish the types of drugs involved and often reflect multiple arrests of the same individuals. Arrest data may indicate trends in drug abuse; however, they also reflect fluctuating levels of police activity. Our data review included arrest statistics; however, the data were not found to be useful. Treatment data from arrestee populations were occasionally useful.

*Treatment data.*—Statistics collected by public, private, and hospital-based drug treatment facilities provide information on heavy drug users. The types of drugs used by persons in treatment may be recorded. In many of the countries studied, however, treatment numbers were not broken down by drug type and did not reflect the number of readmissions among individual users. Heroin addiction is the most widely reported drug problem for which users seek treatment. It is important to note that each treatment study reports polydrug use. Some studies include multiple drug users under the primary drug of abuse and some include them in separate categories.

Another consideration is the health effects of different abused drugs. These affect drug treatment needs as well as location of treatment facilities, which may limit users access to treatment. Treatment numbers may be reported as annual, lifetime, period, and point prevalence, as well as first time admissions. These terms are defined under the Estimation Methods section beginning on page 7.

*Emergency room data.*—Emergency admissions involving drug abuse can be helpful in detecting emerging patterns of drug use. Data based on emergency visits are captured only when the hospital staff are able to identify drug use as a factor contributing to the need for emergency treatment. Therefore, actual treatment episodes involving drugs may be more numerous than the data suggest. Another limitation of data from emergency room treatment is that persons requiring emergency treatment on more than one occasion are not differentiated. Habitual users have a higher likelihood of requiring multiple treatments. The location of emergency room facilities also may affect usefulness of emergency room data.

*Drug-related deaths.*—Data on drug-related deaths are generally supplied by a coroner's office for cases brought to autopsy. Mortality is a reflection of only a small fraction of drug users. From the data we obtained, it is impossible to generalize about the proportion of drug users reflected in these statistics. Cases for which drugs are determined to be an underlying cause of death (i.e., drug poisoning and suicide), as well as drug use identified through toxicological findings, are recorded in the coroner's report. Deaths for which no autopsy is performed are excluded from drug-related death estimates; therefore, drug-related death estimates are not a reliable indicator of drug-related mortality.

*Registered addicts.*—Some countries, primarily in the European community and Mexico, maintain registry systems for addicts. Health professionals and law enforcement officials are required, by law, to inform the registry system of persons suspected or known to be addicted to drugs. While the type of drugs for which addicts must be reported varies by country, opiates and cocaine are commonly included. Legal criterion vary as well. Many countries do not punish drug addicts but may compel them to seek treatment. The United Kingdom's addict registration system, referred to as Home Office Notification, requires doctors only to notify the system of opiate and cocaine abusers. Because severe underreporting is common due to failure of doctors to notify the Home Office, a majority of addicts may never have contact with the health and law enforcement officials charged with addict registration. In a study conducted in the early 1980's, the United Kingdom reported that only one in five daily opiate abusers was notified or registered. It is not known if this multiplier is valid today. Addict registration systems are highly standardized, however, and are a useful guide to drug use trends, particularly among heavy user populations.

*Other indicators.*—Many other indicators of drug use have been identified but offer limited usefulness in estimating consumption. These include AIDS cases among intravenous drug users, drug production estimates in drug-producing countries, and drug-related diagnoses in newborns. As with other sources, the variety of methods used to collect these data, the variety of definitions and rules governing data collection, and the irregularity of data collected, among other factors, hamper the use of these data. These and other indicators are helpful in planning drug prevention strategies but do not measure levels of use accurately.

## ESTIMATION METHODS

Estimation methods used in this report include population-based estimates of the number of users and several types of prevalence estimates. Definitions of four types of prevalence estimates are provided; however, individual countries may define the estimates differently. Sources from which these estimates were obtained and the size of the sample population are presented with the data when available. National population estimates also are provided as points of reference for each country. It is important to note that the population estimates presented may not be the same as the population census used to prepare prevalence estimates by the countries. These estimation methods are described below as they are used in this report.

### Prevalence

Prevalence can refer to people, events, or occasions such as the number of people using drugs, the type and the quantity of drugs consumed, the number of users admitted for treatment, or the dollar amounts involved in the drug trade. Timeframes and geographic boundaries are important considerations in estimating prevalence. The type of prevalence noted in this report is based on the number of individuals reporting drug use during a particular period. The population at risk (e.g., all inhabitants ages 14 and up) is used as the denominator to apply the prevalence rate to the entire country. Characteristics of the sample population compared with characteristics of the national population must be considered in order to produce accurate estimates. Four common estimates of prevalence are used in this report:

- *Annual prevalence (reported as past 12 months).*—This ratio is based on the total number of persons reporting use of specific drugs at any time during the previous year.
- *Lifetime prevalence.*—This ratio is based on the total number of persons reporting drug use at any point in their lives.
- *Period prevalence (most often reported as past 30 days).*—This ratio is based on the total number of persons reporting drug use within the defined time period.
- *Point prevalence.*—This is the number of persons known to be receiving drug treatment or using drugs at a specified point in time. This number fluctuates

throughout each year as users enter and exit treatment and casual users experiment with or stop using drugs.

### Population-Based Estimates

The total number of users of each type of drug is sometimes reported as a number rather than a prevalence ratio. These numbers are rarely an actual count. In most cases, the prevalence rate or percentage is applied to the entire population of the country and reported as a number. For example, a country reporting a 10 percent prevalence ratio of lifetime cannabis use with a population of 100,000 individuals would have a population-based consumption estimate of 10,000 users ( $100,000 \times 0.10$ ).

Estimates of treatment populations (i.e., total numbers of persons in treatment) are generally an actual count of persons receiving treatment in facilities included in the study. It is important to note whether all types of treatment facilities (e.g., public, private, or hospital based) are included or whether numbers represent one facility only. This information is provided in the footnotes for treatment data listed in the tables whenever available.

First-time admissions is another treatment statistic useful for monitoring drug use trends. This number excludes repeat drug users who are in and out of the treatment system over a number of years. This method is useful for estimating new abusers but does not give an accurate view of overall treatment demand.

### SELF-REPORTED DATA

It is important to note that most survey data are based on uncorroborated self-reports of drug use. Accuracy of self-reported data may vary. The level of confidentiality and anonymity assured to the respondent directly affects the respondent's willingness to report drug use. The illegality and social stigma of illicit drug use also may lead to misreporting of use.

Studies of the validity of self-reports show variation in accuracy rates for different survey populations. A lower "willingness to report" indicator is seen among students under the age of 15. In each country, "willingness to report" the use of marijuana increased with the age of the respondent.

Another study by Parker and colleagues (1988) showed that women are less likely than men to report drug use and seek treatment. The report suggests that women fear that their children will be taken from them if they seek treatment.

---

---

## CONSUMPTION PATTERNS AND TRENDS

---

---

### HEROIN

Heroin use is reported to be heaviest in opium-producing countries in Southeast Asia, Colombia, Mexico, and Guatemala as well as in their neighboring countries. Industrialized countries in Europe and North America report heroin use as well. Approximately two-thirds of the countries studied provided figures on heroin use. In the majority of countries reporting, heroin use remained at or below 1 percent of the population.

Dependence on raw opium appears to be greatest among adults and elderly males (although these data are not consistently reported), while heroin users are found to be primarily adolescents and young adults. Adolescent populations are heavily studied in drug abuse surveys. Use of heroin among adolescents and young adults has remained stable or has slightly decreased over the last 10 years for most countries in which heroin use has been reported.

Adult heroin and opium user populations have not been studied consistently from country to country, and little information is available on levels of use or risk for use among adults. Use of opium among adults is often tied to cultural traditions that span many centuries. Population projections forecast increases in the size of this user population as life expectancy continues to rise. Consistent data are needed in order to project accurately the size of the drug-using population and estimate future treatment needs.

Treatment data for all but a few South American countries show heroin as the primary drug used by persons seeking drug treatment. The strength of heroin's addictiveness and its damaging effects on users may explain the treatment demand for heroin users. Notations accompanying treatment data in the individual countries report either a high proportion of heroin addicts who are also abusing other drugs or a significant number of polydrug users seeking treatment for heroin addiction.

### COCAINE

Use of cocaine is highest in South and Central America, predominately in the form of coca leaves or coca paste (basuca), although the form of cocaine used is not consistently reported for all countries. Use of cocaine hydrochloride (HCL), cocaine powder, and free base (a smokable form of cocaine HCL) are heaviest in North American and European countries. Growth of coca leaves and production of cocaine occurs primarily in South America. Central American countries and Mexico are heavily involved in cocaine trafficking, and cocaine is readily available throughout Latin America.

Of all illicit drugs included in this review, cocaine use has increased the most. Coca paste use is highest among adolescents and young adults. Cocaine HCL is used

predominately among middle- and upper-class urban males, and coca leaf chewing occurs among all user age groups in producer countries. The availability of crack has changed user demographics for cocaine. This highly potent form of cocaine is relatively inexpensive in small doses and, therefore, is accessible to all income classes.

Treatment admissions for cocaine dependence have increased. Bolivia recorded a 100 percent increase from 1980 to 1985. Peru reported, in a 1985 study, that 80 percent of drug addicts surveyed were addicted to cocaine free base.

Though treatment data suggest that prevalence of cocaine use is increasing, overall prevalence is still quite low. Data presented in the tables indicate that prevalence of cocaine use in adult populations rarely exceeds 6 percent and that, most commonly, cocaine is used by about 1 percent of the populations studied. Increased law enforcement measures in cocaine-producing regions has led to record cocaine seizures; however, no relationship between seizures and user populations in these countries is reported.

## CANNABIS

Cannabis, from which both marijuana and hashish are derived, appears to be the most widely used of the drugs discussed in this report. Prevalence reports of lifetime use were found to be as high as 70 percent of the adult population (Mexico City, 1988). Levels of use have remained stable or decreased in all countries reporting trend data. Major producers of marijuana include Belize, Brazil, Cambodia, Columbia, Jamaica, Laos, Mexico, the Philippines, and Thailand. Hashish is produced primarily in Afghanistan, Lebanon, Morocco, and Pakistan.

Marijuana is rarely considered to be a drug for which treatment is sought. Treatment data on marijuana were provided by only two of the countries studied. Marijuana is often reported to be among the first drugs used by experimenting adolescents and is believed by some to lead to heavier use of other drugs. For this reason, young users of marijuana are considered to be at the highest risk.

## SUMMARY

In general, most countries report relatively low levels of cocaine and heroin use. The reported prevalence rate for consumption of cocaine and heroin is less than 2 percent in most countries. Cocaine has shown the highest annual rate of increase in use of the drugs studied. Introduction of newer, more affordable forms of cocaine, such as crack, have contributed to this increase. Cocaine addiction is less likely to cause health-related problems for which treatment is sought. Prior to 1985 trend data on the use of cocaine were rarely reported. Since that time consistent increases in the use of cocaine have been indicated in most countries. In Spain, for example, where the Sistema Estatal de Informacion sobre Toxicomanias (SEIT) gathers information on health and law enforcement encounters of cocaine users, steady increases have been reported in the percentage of drug-trafficking prisoners incarcerated for trafficking cocaine, in the amount of cocaine seized, in the percentage of hospital emergencies resulting from cocaine use, and in the percentage of

overdose deaths related to cocaine. Conclusions of the 1989 Pompidou Group meeting predict an upswing in cocaine-related problems in the near future.

Heroin continues to be the most frequently used drug among heavy drug users. It is the most common substance for which addicts seek treatment. Heroin treatment generally involves the use of methadone for detoxification and maintenance. Australia and the Netherlands report the largest numbers of patients receiving methadone maintenance treatment among six countries studied by Gossop and Grant in 1991. France, however, favors other treatment methods. It is noted in the literature of most countries studied that a significant proportion of heroin users also abuse other drugs.

Marijuana remains a popular drug of initiation and casual use, along with inhalants such as glue solvents. Prevalence rates reported in the tables indicate that marijuana use is two to twenty times higher than cocaine and heroin use in most countries. Marijuana, however, has a markedly lower impact on the health of users and is not considered to be in the "hard drug" class as are cocaine and heroin.

Our review showed strong consumption research efforts in Canada, Europe, Latin America, and Mexico. Little data were available for most Asian countries. Oceanic countries—such as Australia, the Bahamas, and Japan—recently have begun efforts to measure drug use, but the data are largely unavailable or inconsistent. This report includes only countries for which reliable, official estimates could be found.

Only a few countries have undertaken reliable, large-scale or national surveys in more than 1 year. Additional surveys are needed to produce reliable trend data. Standardization of data collection efforts is needed to produce comparable figures. The OAS/CICAD is sponsoring such an effort in Central and South American countries. Recommendations made by the Pompidou Group in its 1987 final report on future epidemiological activities include the following:

- Collate and compare epidemiological information on trends in drug misuse in different countries and discuss their significance;
- Exchange information on different data collection and estimation methods; and
- Facilitate the collection of more comparable indicator criteria and development of monitoring systems in the various countries.

---

## RECOMMENDATIONS

---

A review of the data available on the 24 countries covered in this report, plus a review of the literature on other countries for which data were unavailable indicate a great need for standardization of international drug consumption estimation methods and for a coordinated effort to share methodology and results between countries. Data reviewed in this project showed many disparities in official data provided by national governments and anecdotal data available in news reports and from the research community. Data from different sources often conflicted or could not be substantiated. Lack of definitive results reported often left the reviewers with more questions than data. Consequently, these recommendations describe two ways in which the quantity and quality of data available on international drug consumption could be improved.

First, we recommend establishing an ongoing surveillance of data collection efforts internationally. Such a surveillance system would include establishing ongoing communications with health and justice officials in other countries to ensure that data on hand are current, official reports. In addition, anecdotal data would be collected in regular literature reviews to supplement and substantiate data provided by national officials. This data would include local and subgroup surveys, academic and private research, and multinational data collection efforts. Communications also would be established with such organizations as WHO, PAHO, CICAD, OAS, CEWG, the U.S. Agency for International Development, and the Council of Europe's Pompidou Group.

An international surveillance system would improve the availability of data needed to formulate drug policy, identify gaps in data available, and identify areas for which standardized data are available to increase comparability of data between countries.

Second, we recommend selection of a small group of countries for indepth analysis of data collection methods used outside the United States. This analysis would provide an interesting comparison with U.S. methodology. Additionally, findings of the indepth analysis could be used to provide support on policy direction to countries that currently have drug surveillance activities.

---

---

## REFERENCES

---

---

- Anta, G.B. 1991. "The Spread of Cocaine in Europe." In Bruno, F., ed. *Cocaine Today: It's Effects on the Individual and Society*. UNICRI Publ. No. 44. United Nations Interregional Crime and Justice Research Institute. 144-49.
- Bogota y el Consumo de Substancias Psicoactivas: Un Estudio, una Solucion. 1989. Bogota, Columbia: Plan Distrital de Prevencion de la Drogadiccion.
- Bureau of the Census. 1991. "Statistical Abstract of the United States 1991." *The National Data Book*, 111th ed. Washington, DC: Department of Commerce, 830-32.
- Department of Health and Human Services. Public Health Service: Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1992. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1992*. Washington, DC: Government Printing Office.
- Department of Justice. Drug Enforcement Administration. January 1991. *Worldwide Cocaine Situation, 1990*. Washington, DC: Department of Justice, Drug Enforcement Administration.
- Drug Enforcement Administration. July 1992. *The NNIC Report 1991: The Supply of Illicit Drugs to the United States*. Washington, DC: Drug Enforcement Administration, National Narcotics Intelligence Consumers Committee.
- Gossop, M., and Grant, M. 1991. "A Six Country Survey of the Content and Structure of Heroin Treatment Programmes Using Methadone." *British Journal of Addiction* 86:1151-60.
- Grant, M. 1987. "Alcohol and Drug Use: A World Perspective." *Australian Drug and Alcohol Review* 6:289-292.
- Hartnoll, R. October 1991. *Development of Treatment Reporting Systems and First Treatment Demand Indicator: Third Progress Report: Results of Census of Clients in Treatment and Progress on 1st Treatment Demand Reporting*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group).
- Hser, Y.-I. 1993. "Prevalence Estimation: Summary of Common Problems and Practical Solutions." *Journal of Drug Issues* 23(2):335-343.
- Johnston, L.D., Driessen, M.H.M., and Kokkevi, A. 1991. *Report of a Six Country Collaborative Project on Student Surveys of Drug Use*. Strasbourg, France: Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group).

- Klingemann, H., Goos, C., Hartnoll, R., Jablensky, A., and Rehm, J. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.
- Last, J.M., ed. 1988. *A Dictionary of Epidemiology*. International Epidemiological Association, Inc. New York, New York: Oxford University Press.
- Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean." In *Drug Abuse*, Scientific Publ. No. 522. Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, regional office of the World Health Organization.
- Parker, H., Bakx, K., and Newcombe, R. 1988. *Living With Heroin: The Impact of a Drugs Epidemic on an English Community*. Milton Keynes, U.K.: Open University Press.
- Thailand Narcotics Annual Report 1990*. 1990. Thailand: Office of the Narcotics Control Board, Office of the Prime Minister.
- United Nations Economic and Social Council. 1992. *Examination of the World Situation with Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. United Nations Economic and Social Council, Commission on Narcotic Drugs, Thirty-Fifth Session, Vienna, April 6-15, 1992.
- United Nations Economic and Social Council. 1988. *United Nations Conference for the Adoption of a Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances, Vienna, Austria, November 25-December 29, 1988: Corrigendum*. New York, NY: United Nations Economic and Social Council.

---

---

## NARRATIVE AND TABLES

---

---

In this section, we summarize the findings of international drug consumption research efforts identified through the literature. Countries included in the narrative and tables that follow are those identified as priority areas by ONDCP for which sufficient data were available. The countries are grouped by continent. Reports include opium- and coca-producing countries as well as drug-consuming countries. Many factors affect the level of research data available on each country.

Each table is divided into four sections: national data, local data, youth data, and treatment data. National data are based on national surveys or organized health and justice reporting systems. National surveys have been conducted in many South American countries, including Bolivia, Columbia, Costa Rica, Dominican Republic, Ecuador, Guatemala, and Peru, as well as Canada and Mexico in North America. Surveys of subpopulations such as city, regional, or youth groups may be conducted when countries lack adequate resources to survey on the national level or may be conducted to supplement national data and to more closely identify subpopulation drug risks.

Both prevalence and population estimates are reported when available. Sources and footnotes are listed for each column in the table describing the source and data collection year. Additional notes on geographical setting of the survey and size of the sample employed are provided when available.

It is important to note that sources for each column of data vary widely in both years of data collection and survey methodology employed. While it is interesting to note prevalence differences between the study groups, these data are not suitable for statistical comparison.

Finally, this report presents data on treatment when available. Treatment statistics should be viewed cautiously, as they often include only one or a small number of treatment facilities in the country. Additionally, most treatment statistics reported do not identify the primary drug of abuse, and polydrug use is very common. In such cases, we listed treatment data under the category of the drug most commonly reported by addicts presenting for treatment. Multiple sources of data for a country are reported when available. All data sources are footnoted with explanations. No attempt has been made to provide comprehensive totals because of the limitations of the data available.

The tables report useful data on drug use internationally but also show the wide gaps that exist in available drug use statistics. This report includes recommendations on improved surveillance systems to increase the amount of data available and improved information dissemination to increase availability of official reports and sharing of methodology.

---

---

**ASIA**

---

---

---

---

## THAILAND

---

---

Heroin and opium are the drugs most commonly consumed and produced in Thailand. Consumption of these drugs is popular in Bangkok and is widespread among the hill tribes in the mountains of northern Thailand. The Community Epidemiology Work Group estimates that 80 percent of all drug addicts reside in Bangkok. The estimated population of hill tribes is 600,000—less than 1 percent of the 56 million total population.

Cannabis is grown in northeastern Thailand. Marijuana use ranks third among illicit drugs. Studies reviewed for this report did not include estimates of cocaine use on a national level.

Thailand has conducted the *National Survey on Drug Knowledge: Attitude Toward Drugs and Drug Abuse in Secondary Schools in Thailand, 1990* through the Ministry of Education. A study of surveillance of cocaine abuse in high-risk populations in Bangkok was conducted by Syva International Company. Data presented in the tables are official data released by the Embassy of Thailand. The embassy statistics are based on treatment sources and police arrest information.

In 1992 the International Narcotics Control Board (INCB) reported a rise in heroin abuse among hill tribes; however, no numbers are presented to support the statement. A rise in the abuse of stimulants, especially methamphetamines, also is reported by the INCB.

Estimates of the entire drug-addicted population from the Thai embassy show a 15.5-percent increase from 1990 (n=344,088) to 1991 (n=397,402). About 95 percent of all addicts abuse heroin or opium.

### SOURCES

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1988. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1990*. Washington, DC: Government Printing Office.

Embassy of Thailand. 1990. *Estimating the Number of Drug Addicted Population Throughout the Country in 1990 by Capture-Recapture Method, Using Drug Dependence Treatment and Police Arrest Information*. Statistical Tables. Unpublished.

Embassy of Thailand. 1991. *Estimating the Number of Drug Addicted Population Throughout the Country in 1991 by Capture-Recapture Method, Using Drug Dependence Treatment and Police Arrest Information*. Statistical Tables. Unpublished.

*International Narcotics Control Strategy Report, March 1992*. 1992. United States Department of State, Bureau of International Narcotics Matters.

## International Drug Consumption Estimates

### THAILAND

Population Estimate (1990): 55,116,000

Drug Type	National Data				Local Data <sup>1</sup>				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate														
Heroin Prevalence User estimate	1992	62,000 <sup>2</sup>			Bangkok/1991			36,600					299,836 <sup>1</sup>	11,770 <sup>2</sup>
Cannabis Prevalence User estimate	1989		771 <sup>4</sup>										4,611 <sup>1</sup>	474 <sup>2</sup>

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Embassy of Thailand, 1990. Estimating the number of drug-addicted population throughout the country in 1990 by capture-recapture method, using drug dependence treatment and police arrest information. [Note: Includes heroin only. There are an additional 28,353 opium addicts reported.]

<sup>2</sup> Source: Office of the Narcotics Control Board. *Statistical Report on Narcotics Control in Thailand, 1989*.

<sup>3</sup> Source: International Narcotics Control Board, Vienna, 1992. *Report of the International Narcotics Control Board for 1992*. New York: United Nations. [Note: This figure does not include the 35,000 opium users cited in this source. According to the 1992 International Narcotics Control Board Report, no revised figure is available of the number of heroin users in Thailand since a joint study by the U.S. Centers for Disease Control and the Thai Ministry of Health determined in late 1991 that there were 36,000 heroin addicts in Bangkok. Thai authorities had earlier calculated a total of 132,000 addicts in Thailand on the basis of an estimate of 77,000 addicts in Bangkok. Using the same ratio and the new figures for Bangkok, the U.S. Embassy calculated a figure of 62,000 heroin addicts for the country as a whole. Consumption is estimated by ONCB at 0.2 grams per addict per day.]

<sup>4</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs, 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

---

---

**CENTRAL AND  
SOUTH AMERICA**

---

---

---

---

## BOLIVIA

---

---

Bolivia is the largest coca-cultivating country in the world. Some of this cultivation, which involves processing coca into coca paste, is legal and licensed. It is estimated that 765 tons of coca paste are produced each year, of which only 400 to 500 tons are exported. Coca-related employment is estimated to be as high as 24 percent of total employment.

Estimates of domestic drug consumption are based on three surveys: (1) The National Bureau for the Control of Dangerous Substances youth survey (1978); (2) ABC Communications survey of 1,219 Bolivians, ages 8 to 25 years (1986); and (3) the Bolivian Red Cross survey of 1,536 persons, ages 10 to 25 years (1986).

Findings of the ABC Communications study (1986) are not reported as a national prevalence rate. This study indicated the most commonly used substances among drug users are marijuana (38.7 percent) and basic cocaine paste (38.6 percent), followed by psychoactive drugs (8.8 percent), inhalants (7.5 percent), and cocaine hydrochloride (HCL) (6.4 percent). These percentages of drug use are based on the drug-using population only. The ABC study did not include an estimate of how many drug users there were in Bolivia at the time. The Red Cross study found that 36.3 percent of respondents ages 10 to 25 have used marijuana, and 8.8 percent have used cocaine. No mention of heroin was included.

Bolivia's National Institute for Research on Drug Abuse (INIF) focuses primarily on treatment data. INIF studies indicate that 65 percent to 75 percent of all addicts hospitalized in their institution were between the ages of 15 and 30. INIF has worked to increase outpatient treatment, which has progressively reduced hospitalization. There are approximately 20 institutions that treat drug addicts. Hospitalization for cocaine dependence increased by 100 percent between 1980 and 1985.

The government of Bolivia has established the National Council for the Prevention of Drug Addiction; however, resources are insufficient to carry out policies established by the council.

### SOURCES

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Bolivia." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

*Restrictions on U.S. Aid to Bolivia for Crop Development Competing with U.S. Agricultural Exports and Their Relationship to U.S. Anti-Drug Efforts.* June 1990. Washington, DC: General Accounting Office.

## International Drug Consumption Estimates BOLIVIA

Population Estimate (1990): 6,707,000

Drug Type	National Data <sup>1</sup>				Local Data				Youth Data <sup>2</sup>				Treatment Data <sup>3</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate	1988	4.4							1986	8.6				
Heroin Prevalence User estimate														
Cannabis Prevalence User estimate	1988	3.8							1986	36.3				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Medina-Mora, M.E., and Marino, M.C. 1990. "Epidemiological Review of the Drug Abuse Problem in Latin America." In *Project on Hemispheric Cooperation for the Prevention of Drug Abuse and Traffic: Workshop II: Strategies for Demand Reduction, November 28-30, 1990*. San Diego, CA: Institute of the Americas and the Center for Iberian and Latin American Studies. [Note: Extracted from De la Quintar, M.M. 1988. "Informe sobre el consumo de sustancias psicoactivas en Bolivia, La Paz." *Salud Publica*.]

<sup>2</sup> Source: Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 18 Countries of Latin America and the Caribbean: Bolivia." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 140-144. [Note: 1986 Study by the Bolivian Red Cross (n=1,536, ages 10-25 years) reported as "percentages of use."]

<sup>3</sup> Source: *Ibid.* [Note: No treatment estimates are given; however, it is estimated that from 1981 to 1985 substance abuse treatment included 40% for multiple drug abuse, 27% for alcoholism, and 20% for cocaine.]

---

---

## BRAZIL

---

---

Data on abuse of illicit drugs in Brazil is collected by the Centro Brasileiro de Informacoes sobre Drogas Psicotropicas (CEBRID) and the Ministry of Health. CEBRID has conducted large-scale student surveys in 1987 and 1989, as well as surveys of street children in the same years. CEBRID also obtained treatment data through a postal survey of psychiatric hospitals. No national household survey of adults has been conducted.

The 1987 study of 16,151 public school students from Brazil's 10 largest cities was expanded in 1989 to include 30,770 students from both public and private schools, plus public school students from 7 smaller interior cities. Lifetime use of all drugs among students increased from 21.1 percent in 1987 to 26.1 percent in 1989. Frequent use (use of drugs at least 6 times within the last 30 days) increased from 2.7 percent in 1987 to 3.5 percent in 1989.

A 1987 survey of psychiatric hospitals providing treatment for drug dependence indicated that 30 percent of hospitalizations were for cannabis, 24 percent were for unspecified drugs, 16 percent were for cocaine, and 12 percent were for unspecified drug-related disorders.

### SOURCES

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1990. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1990*. Washington, DC: Government Printing Office.

Department of Justice. Drug Enforcement Administration. 1992. *Worldwide Heroin Situation, 1991*. Washington, DC: Department of Justice, Drug Enforcement Administration.

Drug Enforcement Administration. 1992. *The NNIC Report 1991: The Supply of Illicit Drugs to the United States*. Washington, DC: Drug Enforcement Administration, National Narcotics Intelligence Consumers Committee.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Brazil." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates BRAZIL

Population Estimate (1990): 152,505,000

Drug Type	National Data				Local Data				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence									1989 <sup>1</sup> 1987 <sup>2,3</sup> 1987 <sup>4</sup>	0.7	0.4	0.13		496 <sup>1,2</sup> (16.2%)
User estimate														
Heroin Prevalence														
User estimate														
Cannabis Prevalence									1989 <sup>1</sup> 1987 <sup>2,3</sup> 1987 <sup>4</sup>	3.4	1.6	44.0	1,046 <sup>1,2</sup> (29.4%)	
User estimate														

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: National Institute on Drug Abuse. 1990. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1990*. Washington, DC: U.S. Government Printing Office. [Note: Data from 1988 World Health Organization questionnaire.]

<sup>2</sup> Source: Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean: Brazil." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 144-147.

<sup>3</sup> Data from 1987 study of 20,000 students, ages 10-17 years, in 8 cities.

<sup>4</sup> Data from 1987 survey of youth, ages 7-17, who live on the street.

<sup>5</sup> Total admissions to Brazilian psychiatric hospitals for treatment of drug dependence = 3,062.

---

---

## CHILE

---

---

No national data collection efforts on drug abuse in Chile were available. Some prevalence rates for marijuana and cocaine use were provided in the Pan American Health Organization's 1990 publication, *Drug Abuse*, Scientific Publication No. 522. No dates or sources were listed for the data provided. Cocaine consumption is reported to be limited primarily to the northern area of the country. Cocaine was eliminated from the national drug register in 1987. Until that time, cocaine could be obtained legally. This may explain the Pan American Health Organization's estimate that 30 percent of the adult population has used cocaine in their lifetime. It is estimated that only 3 percent of adults are regular users of illicit cocaine.

Treatment data are limited. It is estimated that 2.5 percent of the patients discharged from the psychiatric department of one local hospital were related to the use of freebase cocaine in 1988. No indicators of heroin use were described and no treatment data for heroin addiction was found. Inhalable solvents and improper use of legal drugs are noted to be of concern.

Chile is not a drug-producing country. All raw materials for psychoactive medications to be used in Chile must be imported. Shipment of cocaine from Colombia, Bolivia and Peru is noted as a problem in official reports. Bolivia and Chile are bound by a formal agreement that cargo entering Chile from Bolivia "in transit" is not subject to inspection. Bolivian cocaine is transported easily into Chile due to this agreement.

### SOURCES

Department of Justice. Drug Enforcement Administration. 1991. *Worldwide Cocaine Situation, 1990*. Washington, DC: Department of Justice, Drug Enforcement Administration.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Chile." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates CHILE

Population Estimate (1990): 13,083,000

Drug Type	National Data				Local Data				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate	No Date <sup>1</sup> 1988 <sup>2</sup>	30.0	15,000	3.0 2,000										
Heroin Prevalence User estimate														
Cannabis Prevalence User estimate	1988 <sup>2</sup>		900,000	20,000					No Data <sup>1</sup>	40.0-50.0		5.0		

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean: Chile." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 148-152. [Note: Based on urban population only.]

<sup>2</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

---

---

## COLOMBIA

---

---

Colombia has many remote mountainous regions where coca leaves and opium poppies are cultivated. In an effort to curb demand, Colombia has established the Colombian Corporation Against Alcoholism and Drug Abuse. A national plan related to drug abuse prevention, treatment, and rehabilitation was adopted in 1992. The government is undertaking a national epidemiological survey to evaluate Columbia's current drug situation.

Drug consumption estimates for Colombia include a 1987 survey of 2,800 urban residents, ages 12 to 64 (Torres de Galvis and Murrelle, 1990). The Plan Distrital de Prevencion la Drogadicción conducted a study of 3,000 Bogotá residents, ages 12 and older, in 1989. Both studies identified marijuana as the predominant illicit drug of abuse. Prevalence of marijuana use is estimated at 6.5 percent. Second to marijuana is basuca, or coca paste. Basuca is used primarily by men, although 19,000 of the 81,000 estimated users are women (most of whom are of childbearing age). Data presented by the Pan American Health Organization suggest that basuca users among the study subjects outnumbered cocaine users 2 to 1. Tranquilizers, although they are licit drugs, are the most frequently abused drugs in Colombia.

It is interesting to note that, although Columbia is an opium-producing country, information on heroin use has been gathered only in estimates of polydrug abusers. No estimates of heroin consumption alone appear in the survey reports.

Treatment for drug abuse is available through state services and the social security system as well as through private institutions; however, no statistics on treatment admissions were found.

### SOURCES

International Narcotics Control Board. 1992. *Report of the International Narcotics Board for 1992*. Vienna, Austria: United Nations.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Colombia." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

Torres de Galvis, Y., and Murrelle, L. 1990. "Consumption of Dependence-Producing Substances in Colombia." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

**International Drug Consumption Estimates  
COLOMBIA**

Population Estimate (1990): 33,076,000

Drug Type	National Data <sup>1</sup>				Local Data <sup>2</sup>				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine <i>Prevalence</i>	1987 (cocaine)	2.1	0.3	0.2										
	1987 (basuca <sup>3</sup> )	3.7	0.6	0.6										
<i>User estimate</i>	1987 (cocaine)	31,000			Bogotá/1989 cocaine basuca	66,639 63,034								
	1987 (basuca)	81,000												
Heroin <i>Prevalence</i>														
<i>User estimate</i>														
Cannabis <i>Prevalence</i>	1987	6.5	1.1	1.1										
<i>User estimate</i>	1987	137,000			Bogotá/1989	157,463								

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Tomas de Galvis, Y., and Murrell, L. 1990. "Consumption of Dependence-Producing Substances in Colombia." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 15-26. [Note: Based on "Estudio Nacional Sobre alcoholismo y consumo de sustancias que producen dependencia" (n=2,800, ages 12-64 years, urban population).]

<sup>2</sup> Source: Plan Distrital de Prevencion de la Drogadiccion, 1989. *Bogota y el Consumo de Substancias Psicoactivas: un Estudio, Una Solucion*. Bogota, Colombia: Plan Distrital de Prevencion de la Drogadiccion. [Note: Based on survey of Bogota residents (1989, n=3,000, ages 12 and up)]

<sup>3</sup> Basuca refers to cocaine paste.

---

---

## COSTA RICA

---

---

Survey results indicate that marijuana is the most widely used illicit drug in Costa Rica.

Costa Rica's Institute on Alcoholism and Drug Dependence (IAFA) maintains records on consumption, treatment and prevention. No government funding is available for research; however, the IAFA has participated in some international research efforts sponsored by the World Health Organization.

Data collection efforts in Costa Rica began in 1983 with three surveys conducted (1) in San Jose, (2) among criminal populations, and (3) with a national sample of 1,399 individuals. In 1984 a survey of inhalants used by minors was conducted, and in 1985 a high school survey was undertaken.

Large-scale national prevalence studies began in 1987, with a household survey of 2,700 persons ages 14 to 60 years. Results indicated that 3.5 percent of the total study population had used some type of illicit drug during their lifetime. National surveys were repeated in 1988 with 2,083 respondents and in 1990 with 2,784 respondents.

Findings from the 1987 national survey showed that among drug users, 91.4 percent used marijuana. Use of inhalants, tranquilizers, and hallucinogens was equal, at 8.5 percent each. Cocaine use among drug users was reported at 5.7 percent. Review of the recent IAFA studies shows a notable rise in the consumption of illicit drugs. Marijuana use has increased from 3.2 percent in 1987 to 3.7 percent in 1990. Cocaine use has increased from 0.2 percent in 1987 to 0.5 percent in 1990—a 250-percent increase.

Treatment data are available from July 1990 through April 1991. However, the published data do not distinguish between treatment for alcoholism and treatment for other drug use.

### SOURCES

Comision Interamericana para el Control del Abuso de Drogas (CICAD). 1991. *Proyecto de Accion Subregional para Centroamerica, Panama y Republica Dominicana (CICAD-CIECC) sub Proyecto: Investigacion y Vigilancia Epidemiologica sobre el Alcohol y Otras Drogas*. Washington, DC: CICAD.

Esquivel, L.E.S., and Cerrales, K.A. 1990. "Validity of the Addiction Severity Index (Adapted Version) in a Costa Rican Population Group." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

*European Integration, the United States, and Narcotics Control: Rhetoric and Reality—Report of a Staff Study Mission to Great Britain, Italy, Portugal, Spain, and Kenya, January 8-26, 1990 to the Committee on Foreign Affairs, U.S. House of Representatives, March*

1990. 1990. One Hundred and First Congress, 24th Session. Washington, DC: Government Printing Office.

Medina-Mora, M.E., and Marino, M.C. 1990. "Epidemiological Review of the Drug Abuse Problem in Latin America." In *Project on Hemispheric Cooperation for the Prevention of Drug Abuse and Traffic—Workshop II: Strategies for Demand Reduction, November 28-30, 1990*. San Diego, CA: Institute of the Americas and the Center for Iberian and Latin American Studies.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Costa Rica." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates

### COSTA RICA

Population Estimate (1990): 3,033,000

Drug Type	National Data				Local Data <sup>1</sup>				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence	1990 <sup>2</sup> 1987 <sup>3</sup>	0.5 0.2	0.24	0.04										
User estimate														
Heroin Prevalence														
User estimate														
Cannabis Prevalence	1990 <sup>2</sup> 1987 <sup>3</sup>	3.7 3.2	1.6	1.44	San Jose/1990	15.0	8.0							
User estimate														

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Comisión Interamericana para el Control del Abuso de Drogas (CICAD). 1991. *Proyecto de Acción Subregional para Centroamérica, Panamá y República Dominicana (CICAD-CIEEC) sub Proyecto: Investigación y Vigilancia Epidemiológica sobre el Alcohol y Otras Drogas*. Washington, DC: CICAD. [Note: IATA Study, 1990.]

<sup>2</sup> Source: Instituto Sobre Alcoholismo y Farmacodependencia, Departamento de Investigación. 1991. *Estudio Nacional: Sobre Consumo de Alcohol y Drogas Ilícitas*. San José, Costa Rica: IAFA. [Note: Based on 1990 National Survey (n=2,100, ages 12-70 years).]

<sup>3</sup> Source: Martínez, P.L., and Alfaro, E.M. 1989. "Informe Preliminar Sobre la Prevalencia del Consumo de Drogas en Costa Rica." *Revista Latinoamericana Sobre Alcohol y Drogas* 1:66-72. [Note: Based on 1987 Household Survey (n=2,083).]

---

---

## DOMINICAN REPUBLIC

---

---

The Dominican Republic conducted a Survey of Prevalence and Attitudes sponsored by the U.S. Agency for International Development from October 1991 to April 1992. The survey studied 3,015 persons, from 12 to 45 years of age in urban areas. Data on use of health facilities was collected; however, no drug treatment data were reported.

Earlier data collection efforts include a Comision Interamericana para el Control del Abuso de Drogas (CICAD)/CIECC study of drug use in 1990; a 1986 student survey with 239 respondents, a study of 990 university students and 6 faculty members, a study of 222 students in San Pedro, and a street survey of 836 children in Santo Domingo. Descriptions of the later three studies did not include the study dates.

Illicit drug use in urban areas of the Dominican Republic appears to be considerably lower than it is in urban areas of other Latin American countries. Santo Domingo has the highest lifetime prevalence of marijuana use (1 percent) and the highest current use of cocaine (2.5 percent) among the cities studied. Midsized cities have the highest lifetime and current use of inhalants and small cities have the highest lifetime use of crack-cocaine.

### SOURCES

Comision Interamericana para el Control del Abuso de Drogas (CICAD). 1991. *Proyecto de Accion Subregional para Centroamerica, Panama y Republica Dominicana (CICAD-CIECC) sub Proyecto: Investigacion y Vigilancia Epidemiologica sobre el Alcohol y Otras Drogas*. Washington, DC: CICAD.

Jutkowitz, J.M., Eu, H., Leavy, M., and Pagan, L. 1992. *Survey on Drug Prevalence and Attitudes in the Dominican Republic*. Agency for International Development, Bureau for Research and Development, Narcotic Awareness and Education Project, Arlington, Virginia.

**International Drug Consumption Estimates**

**DOMINICAN REPUBLIC**

Population Estimate (1990): 7,241,000

Drug Type	National Data <sup>1</sup>				Local Data <sup>1</sup>				Youth Data <sup>2</sup>				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate	1992	1.1	0.2	0.2	Santo Domingo/ 1992	1.0	0.3	0.3	San Pedro/ no data	0.5				
Heroin Prevalence User estimate														
Cannabis Prevalence User estimate	1992	2.0	0.3	0.2	Santo Domingo/ 1992	2.5	0.7	0.4	San Pedro/ no data	1.8				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Jurkowitz, J.M., Eu, H., Leavy, M., and Pagan, L. 1992. *Survey on Drug Prevalence and Attitudes in the Dominican Republic*. United States Agency for International Development, Bureau for Research and Development, Narcotic Awareness and Education Project. [Note: Based on survey of population ages 12-45 in municipalities with a population greater than 20,000 (n=3,015).]

<sup>2</sup> Source: Comisión Interamericana para el Control del Abuso de Drogas (CICAD). 1991. *Proyecto de Acción Subregional para Centroamérica, Panamá y República Dominicana (CICAD-CIEEC) sub Proyecto: Investigación y Vigilancia Epidemiológica sobre el Alcohol y Otras Drogas*. Washington, DC: CICAD. [Note: Based on survey of 222 students.]

---

---

## ECUADOR

---

---

Ecuador is a minor producer of coca. Its seaports are believed to be used as a transshipment point for Colombian cocaine. Primary drugs of abuse are reported to be unprescribed medications, including tranquilizers, amphetamines, and barbiturates. Marijuana is the only illicit drug that matches the level of use of these licit substances.

Estimates of drug consumption are based on one national survey, conducted from October 1987 to December 1988, by the Mental Health Division of Ecuador's Ministry of Public Health and the Fundacion Nuestros Jovenes. This survey of 6,316 respondents, ages 10 to 65 years, was based on a model developed by the United Nations. Data on drug use in the cities of Quito and Grayaquil also were collected in this survey effort.

National survey data reported marijuana as the primary illicit drug of abuse. Use of marijuana was higher among adults in the cities (5.0 to 6.6 percent) than for the national adult population (4.0 to 4.4 percent). Use of cocaine products (cocaine and coca pasts) and use of opiates (including heroin) were reported at 2 percent each. Drug use among students in Quito was investigated by the Mental Health Division of Ecuador between 1979 and 1984. Trend data available from these investigations reported a decrease in the number of respondents admitting to having used drugs, dropping from 16.1 percent in 1982 to 11 percent in 1984.

The drug treatment data presented in the accompanying table were collected from treatment centers only. No statistics were available from hospital emergency rooms. It is estimated that 5 to 10 percent of psychiatric hospital beds are assigned to drug abuse cases. Of 1,259 addicts seeking treatment for drug abuse in 1987, 40.8 percent were treated for abuse of cocaine and 34.8 percent for abuse of cannabis. No mention of treatment for heroin addiction was found.

### SOURCES

Aguilar, Z.E. 1990. "Prevalence of the Improper Use of Alcohol, Tobacco and Drugs in the Ecuadorian Population." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

Department of Justice. Drug Enforcement Administration. 1991. *Worldwide Cocaine Situation, 1990*. Washington, DC: Department of Justice, Drug Enforcement Administration.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Ecuador." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

Soria, P.B., and Andrade, P.A. 1990. *El Consumo de Drogas en el Ecuador: Una Aproximacion Cuantitativa*. Quito, Ecuador: Ministerio de Salud Publica, Fundacion Nuestros Jovenes.

## International Drug Consumption Estimates ECUADOR

Population Estimate (1990): 10,507,000

Drug Type	National Data				Local Data <sup>1</sup>				Youth Data				Treatment Data <sup>2</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence	1988/cocaine <sup>1</sup>	1.0		0.1									1,258	
	1988/cocaine base <sup>1</sup>	1.1		0.11										
User estimate	1988 <sup>2</sup>		26,075	4,679										
Heroin Prevalence	1988/opiates <sup>1</sup>	2.0		0.4										
User estimate														
Cannabis Prevalence	1988 <sup>1</sup>	4.0-4.4		0.2	Quito/1988	5.0								
					Guayaquil/1988	6.6								
User estimate	1988		205,887	18,717										

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Corta, P.B., and Andrade, F.A. 1989. *El consumo de Drogas en el Ecuador: Una Aproximación Cuantitativa*. Quito, Ecuador: Ministerio de Salud Pública, Fundación Nuestros Jóvenes.

<sup>2</sup> Source: Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean: Ecuador." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 162-164. [Note: Number represents total patients treated for drug abuse; of these, 40.8% were treated for cocaine, 34.8% cannabis, 1.7% psychotropic medications, 1.5% inhalants, and 21.1% unknown.]

<sup>3</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

---

---

## GUATEMALA

---

---

Cocaine use is reported among 1.4 percent of the population, while marijuana use is reported among 7.3 percent. Sedatives, such as diazepam, are the most commonly abused drugs in Guatemala. In addition, use of inhalants is reported to be widespread among youth beginning at age 9, especially in urban areas.

Estimates of drug abuse were obtained from a 1990 survey conducted by the Guatemala Ministry of Health, in which 1,807 persons ages 12 to 45 were studied. The survey was conducted in three urban centers: (1) the city of Guatemala, (2) Quetzaltenango, and (3) Escuinta. The survey questionnaire was adapted from National Institute on Drug Abuse guidelines. Lack of resources has prohibited further survey efforts.

Treatment statistics listed by hospitals do not specify drugs of abuse. The number of patients being treated in psychiatric settings for drug abuse is unknown, but it is not considered to be high. Guatemala does not maintain reliable statistics on patients who request or receive emergency treatment or other services for drug-related problems.

Cultivation of poppies and cannabis recently has been discovered in Guatemala. Legal production of psychoactive drugs is monitored by the government. The National Narcotics Intelligence Consumers Committee reports that opium poppy cultivation is believed to have increased in Guatemala due to strict control and eradication efforts in Mexico.

### SOURCES

Comision Interamericana para el Control del Abuso de Drogas (CICAD). 1991. *Proyecto de Accion Subregional para Centroamericana, Panama y Republica Dominicana (CICAD-CIECC) sub Proyecto: Investigacion y Vigilancia Epidemiologica sobre el Alcohol y Otras Drogas*. Washington, DC: CICAD.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Guatemala." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates GUATEMALA

Population Estimate (1990): 9,098,000

Drug Type	National Data <sup>1</sup>				Local Data				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate	1990	1.4		0.3										
Heroin Prevalence User estimate														
Cannabis Prevalence User estimate	1990	7.3		2.9										

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: *Proyecto de Accion Subregional para Centroamerica, Panama y Republica Dominicana (CICAD-CIECC) sub Proyecto: Investigacion y Vigilancia Epidemiologica sobre el Alcohol y Otras Drogas*. Washington, DC: Comision Interamericana para el Control del Abuso de Drogas (CICAD), 1991. [Note: 1,807, ages 12-45 years, urban population.]

---

---

## PERU

---

---

Peru is a leading coca-producing country according to the U.S. Drug Enforcement Administration. Coca plants, especially in the northern Upper Huallaga Valley, allow for the production of coca paste, cocaine base, and processed cocaine hydrochloride (HCL).

In 1989, a national household survey of 7,425 persons was conducted in Lima (4,146 respondents) and in the provinces (3,279 respondents). Survey findings revealed that cocaine, sedatives, and analgesics are the primary drugs of abuse. Lifetime use of coca leaves was reported by 21.7 percent of the respondents. Use in the past year was reported by 4 percent. Marijuana use was reported by 8.3 percent as lifetime users and 1.3 percent as users within the past year. Cocaine freebase is believed to be the drug most commonly consumed in the city of Lima, surpassing even alcohol. A 1985 study conducted in Lima and Callao reported that 80 percent of all addicts are addicted to cocaine freebase. This study estimated that a total of 60,000 persons (4.4 percent of the population) were "addicted" to psychotropic drugs.

Drug abuse research efforts in Peru have included a study of inhalant use by minors, conducted in 1981. Inhalant use was found to begin at an average age of 9 years, with plastic glues being the most commonly inhaled substances.

Treatment data from one outpatient clinic in 1987 indicated that 94.5 percent of the 487 patients seeking drug abuse treatment were male. Four percent of the 380 beds at the hospital are set aside for drug-addicted patients. No estimates are available for the country as a whole.

### SOURCES

Department of Justice. Drug Enforcement Administration. 1991. *Worldwide Cocaine Situation, 1990*. Washington, DC: Department of Justice, Drug Enforcement Administration.

Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean—Peru." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates

### PERU

Population Estimate (1990): 21,906,000

Drug Type	National Data <sup>1</sup>				Local Data				Youth Data				Treatment Data <sup>2</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence	1985 (cocaine)	2.6											487	
User estimate	1986 (coca leaves)	21.7	4.0											
Heroin Prevalence														
User estimate														
Cannabis Prevalence	1986	6.3	1.3											
User estimate														

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Pan American Health Organization. 1990. "Epidemiologic Report on the Use and Abuse of Psychoactive Substances in 16 Countries of Latin America and the Caribbean: Peru." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 188-191. [Note: Based on 1986 national household survey (n=7,425; 4,148 in Lima and 3,279 in the provinces).]

<sup>2</sup> Source: Ibid. [Note: Of 1,918 patients treated in 1 outpatient clinic, 25.4% or 487 were drug addicts. No breakdown by drug is given.]

---

---

**EUROPE**

---

---

---

---

## DENMARK

---

---

Cannabis is reported to be the most widespread drug of abuse in Denmark. Data from the 1991 national survey report that 22 percent of adults had used marijuana in their lifetime. Heroin and cocaine use is limited, with lifetime prevalence for each drug reported at 1 percent. The Pompidou group estimates the number of heroin users to be between approximately 6,000 and 8,000. Most heroin addicts are reported to use other drugs as well.

Data collection efforts in Denmark include a 1991 Omnibus National Survey of Adult Knowledge and Attitudes to Intoxicants, conducted by the National Institute of Social Research and the Central Statistics Office for the Danish National Board of Health; national surveys of ninth-grade students conducted in 1970 and 1990; and a longitudinal study of incarcerated drug abusers beginning in 1967 with 11 followup years.

Student data show a decrease in cannabis use from 22 percent in 1970 to 17 percent in 1990. Prevalence of amphetamine use is reported to be 1 percent and "hard core" drugs, including heroin and cocaine, rarely or never are reported.

Trend data reported by the World Health Organization cite an increase in the supply of all illicit drugs between 1986 and 1988. Illegal sales of pharmaceutical drugs are included.

### SOURCES

Dall, E. 1991. *Multi-City Study of Drug Misuse in the Municipality of Copenhagen, 1980-1990*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group).

Klingemann, H., Goos, C., Hartnoll, R., Japlensky, A., and Rehm, J. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

## International Drug Consumption Estimates

### DENMARK

Population Estimate (1990): 5,131,000

Drug Type	National Data <sup>1</sup>				Local Data				Youth Data <sup>2</sup>				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate	1991	1.0							1990	>1.0				
Heroin Prevalence User estimate	1991 1991	1.0 6,000-8,000							1990	>1.0			3,000 <sup>3</sup>	
Cannabis Prevalence User estimate	1991	22.0							1990	17.0				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Dell, E. 1991. *Multi-City Study of Drug Misuse in the Municipality of Copenhagen, 1960-1990*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group).

<sup>2</sup> Source: *ibid.* [Note: This figure is based on a national survey of ninth-grade school pupils conducted in 1990.]

<sup>3</sup> Source: Klingemann, H., et al. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization. [Note: Based on addicts in treatment for all drugs. No date given.]

---

---

## FRANCE

---

---

The ministry of Social Affairs collects data on drug use in France every November from specialized and nonspecialized treatment centers. A total of 10,604 clients were treated in treatment centers in November 1989. Included in the survey were specialist centers, health care establishments, and social service establishments. Half of the drug addicts receiving treatment are repeat admissions who have been using the treatment system for an average of 3½ years. The mean age of clients is 26.7 years. Among treatment clients, 54 percent reported using heroin, while only 2 percent reported using cocaine.

France is a transit and consumer country for Southwest Asian heroin and is emerging as a transit and consumer country for cocaine from South America. Southeast Asian heroin also is smuggled into France, primarily for local use. It is believed that crack-cocaine first appeared in France in 1988. In 1991 it was reported to be available at 6 locations in Paris alone.

A study of cocaine and heroin users in Paris was in process in 1992. Early trend indicators from this study show use of cocaine increasing since 1980, although researchers believe that the market for heroin has not yet stabilized. Additional trend indicators reported by the World Health Organization show a 42-percent increase in the number of drug abusers requesting treatment between November 1987 and November 1990. Heroin users represented 61.7 percent of abusers requesting drug treatment in 1990. Only 2 percent of those seeking treatment reported cocaine as the primary substance of abuse. It is reported that 45 percent of heroin users also use cocaine.

### SOURCES

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1991. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1991*. Washington, DC: Government Printing Office.

Klingemann, H., Goos, C., Hartnoll, R., Japlensky, A., and Rehm, J. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

*Review of the 1992 International Narcotics Control Strategy Report: Hearings Before the Committee on Foreign Affairs and the Subcommittee on Western Hemisphere Affairs*. 1992. House of Representatives, 102nd Congress, 2nd Session, March 3, 4, 11, and 12, 1992. Washington, DC: Government Printing Office.

## International Drug Consumption Estimates

### FRANCE

Population Estimate (1990): 56,358,000

Drug Type	National Data <sup>1</sup>				Local Data				Youth Data				Treatment Data <sup>2</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate													1,905 <sup>3</sup>	
Heroin Prevalence User estimate	1990	100,000-150,000											28,262 <sup>4</sup> 5,804 <sup>4</sup>	12,644 <sup>4</sup>
Cannabis Prevalence User estimate													227 <sup>6</sup>	

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: National Institute on Drug Abuse. 1991. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1991*. Washington, DC: U.S. Government Printing Office. [Note: The estimate refers to the number of abusers of all drugs, not limited to heroin. Heroin is the most common drug of abuse in France.]

<sup>2</sup> Source: Toussaint, M., Facy, F., and Ingold, F.-R. 1992. *Multi-City Study: Paris, Data Update, May 1991*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group).

<sup>3</sup> Point prevalence data for November 1989 based on 10,604 addicts in treatment at that time.

<sup>4</sup> Number of drug addicts receiving treatment in specialist centers. Includes all drug types; no breakdown available. Specialist centers care for 52% of addicts in all treatment settings.

---

---

## GERMANY

---

---

Drug abuse indicators for Germany are primarily available from law enforcement sources and treatment centers. Data monitoring systems of identified and notified<sup>1</sup> drug addicts have been improved as the register of addicts was computerized. Self-report surveys of drug use began in Hamburg, with school surveys of 13 to 19 year olds conducted in 1971, 1973, and 1975. Nationwide household surveys were conducted in 1982 and 1987, measuring attitudes, habits, and readiness to use drugs, medications, alcohol, and tobacco.

Conclusions drawn by the Pompidou Group in its 1990 updated report on Germany suggest that the use of "hard drugs" (heroin and cocaine) has been leveling off since 1986. This statement is based on several indicators, including the incidence of confirmed abusers, which shows a decreasing percentage of new abusers. While these indicators show a slowing of growth, there has nevertheless been a continuous growth in heroin use and trafficking observed in treatment and law enforcement sources since 1987. The group estimates that there were approximately 7,000 heroin addicts living in Hamburg in 1990. Approximately 10,784 new users of both cocaine and heroin were identified in 1990.

Indicators reported by the World Health Organization show an increase in the average age of addicts. Data on juveniles show stabilization or downward trends in use. Drug misuse among youth is reported as sporadic use only and is limited to hashish and marijuana for most young users.

The number of addicts seeking treatment in 1988 increased sharply over previous years. As more addicts presented themselves for treatment, waiting lists increased and waiting time averaged 3 months in 1990. Detoxification capacities at the study center were increased in 1991.

### SOURCE

Albrecht H.-J., and Kalmthout, A. 1989. *Drug Policies in Western Europe*. Freiburg, Germany: Eigenverlag Max-Planck Institut.

Klingemann, H., Goos, C., Hartnoll, R., Japlensky, A., and Rehm, J. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

---

<sup>1</sup>Identified and notified users refer to persons identified in Germany's addict registration system.

## International Drug Consumption Estimates

### GERMANY

Population Estimate (1990): 78,475,000

Drug Type	National Data				Local Data				Youth Data <sup>1</sup>				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence  User estimate	1989 <sup>2</sup>			20,000-50,000	Hamburg/1990 <sup>5</sup> Munich/1990 <sup>6</sup>	115	1,000 (official) 30,000 (unofficial)						2,308 <sup>2,7</sup> (1990)  1,280 <sup>3,4</sup> (1989)	
Heroin Prevalence  User estimate	1985 <sup>7</sup> 1990 <sup>3</sup>		10,784	12,300	Hamburg/1990 <sup>3</sup>			7,000					4,766 <sup>3,4</sup> (1989)	
Cannabis Prevalence  User estimate	1989 <sup>3</sup> 1985 <sup>7</sup>		26.0	20,100					No data	10.0				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Albrecht, H.-J., and van Kalmthout, A. 1989. *Drug Policies in Western Europe*. Freiburg, Germany: [publisher].

<sup>2</sup> This figure refers to the number of registered drug abusers, not necessarily those in treatment.

<sup>3</sup> Source: Kingemann, H., et al. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

<sup>4</sup> Treatment data based on outpatient care statistics only.

<sup>5</sup> Source: Council of Europe, Pompidou Group, Multi-City Study Subgroup. 1991. *Report on Drug Misuse in Hamburg, Updated to 1990*. Strasbourg, France. [Note: Total population of Hamburg in December 1989 was 1,626,220.]

<sup>6</sup> Source: Community Epidemiology Work Group. 1988. *Epidemiology of Drug Abuse in the United States and Europe: Proceedings June 1988*. NIDA, DHHS. [Note: The population of Munich in 1988 was 1.3 million. Although the official data estimate of prevalence is about 1,000 cocaine users in Munich, pilot snowball data suggest that prevalence is approximately 30,000.]

<sup>7</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

<sup>8</sup> Source: Lange, K.J. 1991. *Report on Drug Misuse in Hamburg Updated to 1990*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group). [Note: Number indicates new users only of "hard drugs" (cocaine and heroin).]

---

---

## ITALY

---

---

The Italian Ministry of Social Affairs is charged by law with submitting an annual report to the Parliament on the drug abuse situation in Italy. Data are collected through an information system coordinated by the Ministry of the Interior, known as the Permanent Observatory on Drug Abuse. This system, implemented in 1984, collects data quarterly from public and private treatment centers in 20 regions. The Ministry of Health then reports on the primary drug of abuse among people in treatment. In 1988, 90 percent of first-time treatment clients reported heroin as the primary drug of abuse. Seventy-one percent reported multiple drug use.

Recent independent data collection efforts have included a survey on cocaine misuse in the Rome area (1988-1990), a study of nonfatal emergency episodes in the Florence area still in progress in November 1991, a survey of changes in attitudes toward drugs in a sample of adolescents and young people in Rome in 1988 and 1987, 1988, and 1989 surveys of drug use in high schools.

The 1988 survey on cocaine abuse questioned 83 cocaine users, ages 25 to 51 years, in Rome. The survey results provided a profile of cocaine users. Frequency of use was reported between 1 to 2 times per week. Twenty percent used cocaine in combination with heroin. Seventy-two percent reported that they had no health problems as a result of their cocaine use. Intranasal use is the route of administration for over 80 percent of the sample.

The studies of high school students showed increasing lifetime use of cocaine and heroin, reporting 8 percent in Aosta in 1987, 11 percent in Aosta in 1988, and 12.6 percent in Cividale in 1989. A 1990 estimate for Aosta, however, reported lifetime use of heroin and cocaine at 1.2 percent.

Between 1988 and 1991, the number of addicts in public treatment for all drug abuse increased from more than 27,000 to more than 49,000. In residential communities, the number increased from approximately 7,000 to more than 14,500. Data from the Ministry of the Interior indicate that use of methadone treatment programs remains stable while participation in psychological and social programs has increased.

### SOURCE

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1990. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1990*. Washington, DC: Government Printing Office.

Klingemann, H., Goos, C., Hartnoll, R., Japlensky, A., and Rehm, J. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

## International Drug Consumption Estimates

### ITALY

Population Estimate (1990): 57,664,000

Drug Type	National Data				Local Data <sup>1,2</sup>				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate					Rome/1990	148			Rome/1988 <sup>3</sup>	1.1				
Heroin Prevalence User estimate	1988 <sup>4,5</sup> 1988 <sup>6</sup> 1989 <sup>6</sup>	16.9 350,000		100,000- 200,000	Rome/1990	740			Civitate/1989 <sup>6</sup>	12.6	8.8	5.7	63,824 (1991) <sup>1,7</sup>	24,000 (1990) <sup>8</sup>
Cannabis Prevalence User estimate	1991 <sup>10</sup>		37,000		Rome/1990	2,960			Rome/1988 <sup>3</sup> Civitate/1989 <sup>6</sup>	12.0 7.1				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Macchia, T., Dell'Utri, A., Mancinelli, R., and Avlco, U. 1991. *Multi-City Study: Rome*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group).

<sup>2</sup> Population of Rome was estimated to be 3.7 million in 1990.

<sup>3</sup> National Institute on Drug Abuse. 1989. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1988*. Washington, DC: U.S. Government Printing Office. [Note: Based on a survey of changes in attitudes toward drugs in a sample of adolescents and young people conducted in June 1988 at the University of Bologna and the Istituto Superiore de Sanita (n=726, ages 12-16).]

<sup>4</sup> Source: National Institute on Drug Abuse. 1990. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1989*. Washington, DC: U.S. Government Printing Office, 1990.

<sup>5</sup> Prevalence rate of 16.9% for heroin use is based on adult population ages 15-39 years only. Prevalence for entire population (57.1 million in 1988) is approximately 0.6%.

<sup>6</sup> Source: National Institute on Drug Abuse. 1990. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1990*. Washington, DC: U.S. Government Printing Office. [Note: Based on survey of Valle d'Aosta high school students. Self-administered questionnaire completed by one class at each grade level of all schools (110 of 231 classes reporting) (n=1,759). Number includes cocaine and heroin.]

<sup>7</sup> Point prevalence estimate for 1991 fourth quarter, number of clients in public services and residential treatment centers.

<sup>8</sup> Source: National Institute on Drug Abuse. 1992. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1992*. Washington, DC: U.S. Government Printing Office.

<sup>9</sup> Source: Klingemann, H., et al. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

<sup>10</sup> Source: National Institute on Drug Abuse. 1991. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1990*. Washington, DC: U.S. Government Printing Office.

---

---

## NETHERLANDS

---

---

The Netherlands has a national information system on alcohol and drugs known as LADIS or the National Landelijke Alcohol and Drugs Information System. This system identified 15,000 to 20,000 "hard drug" users in 1991. Polydrug use has replaced heroin use among most hard drug users. Estimates by the Pompidou Group in 1991 place the number of addicts at 21,000. Indicators used by the Pompidou Group suggest that the overall drug problem is stabilizing and has decreased in some cities.

National data collected by NNS Market Research in 1987 showed lifetime prevalence of cannabis use at 6 percent, and lifetime use of hard drugs (including cocaine and heroin) at 1 percent. National data were collected on adults, ages 15 and older. Prevalence data for Amsterdam only in 1987 and 1990 showed an increase in lifetime cannabis use from 22.8 percent to 24.7 percent. Cocaine use dropped from 5.6 percent to 5.5 percent; lifetime use of heroin was not measured in 1987; however, past year and past month data show a decline in use. Sedatives are the second most common drugs of abuse in Amsterdam, following cannabis.

Use of cannabis has been decriminalized in the Netherlands, although decriminalization does not appear to have resulted in increased use according to the sources cited below.

Trend data reported by the World Health Organization show an increase in the use of powder cocaine (versus crack-cocaine), based on seizure data. Estimates of heroin use fluctuate seasonally due to tourist traffic; however, the extent of heroin use is reported to be relatively stable among residents and may be declining in some cities.

Treatment data show 7,000 persons in methadone maintenance treatment (point prevalence) in 1990 in approximately 60 municipalities. The Consultation Bureaus for Alcohol and Drug Problems reported 16,000 clients in 1989.

### SOURCES

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1990. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December, 1989*. Washington, DC: Government Printing Office.

Klingemann, H., Goos, C., Hartnoll, R., Japlensky, A., and Rehm, J. 1992. *European Summary on Drug Abuse: First Report (1985-1990)*. Copenhagen, Denmark: World Health Organization.

Wijngaart, G.F. 1991. *Competing Perspectives on Drug Use: The Dutch Experience*. Amsterdam; Berwyn, PA: Swets & Zeitlinger.

## International Drug Consumption Estimates

### NETHERLANDS

Population Estimate (1990): 14,936,000

Drug Type	National Data				Local Data <sup>1</sup>				Youth Data <sup>2</sup>				Treatment Data <sup>3</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence					Amsterdam/ 1990	5.5	1.3	0.4	1989	1.0	0.3			
User estimate	1985 <sup>4</sup>		75,000											
Heroin Prevalence	1987 <sup>1</sup>	1.0			Amsterdam/ 1990	1.0	0.1	0.0	1989	0.5	0.3		16,600 (1989)	
User estimate	1985 <sup>4</sup> 1990 <sup>4</sup>		5,000	20,000										
Cannabis Prevalence	1987 <sup>1</sup>	6.0			Amsterdam/ 1990	24.7	9.9	6.0	1989	9.9	4.6			
User estimate	1985 <sup>4</sup> 1990 <sup>4</sup>		300,000	12,500										

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group). 1991. "Drug Abuse Situation in the Netherlands." Paper presented at the First Pan-European Ministerial Conference on Illicit Drug Abuse Problems, Oslo, May 9-10, 1991. [Note: Based on survey data "Prevalence of Drug Use in Amsterdam 1989/1990" (n=4,440, ages 12 and up). Prevalence rate of 1% lifetime heroin use is reported as "hard drugs." Cocaine users are included in this figure.]

<sup>2</sup> Source: Plomp, H.N., Kuipers, H., and van Oers, M.L. 1991. *Smoking, Alcohol Consumption, and the Use of Drugs by Schoolchildren From the Age of 10*. Amsterdam, Netherlands: VU University Press. [Note: Based on fourth survey of the Youth Health Survey Centers 1988/1989.]

<sup>3</sup> Refers to the number of clients in treatment in the Consultation Bureaus for Alcohol and Drug Problems. This number represents 37% of the total case load.

<sup>4</sup> Source: National Institute on Drug Abuse. 1991. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1991*. Washington, DC: U.S. Government Printing Office. [Note: Past 30 days use of heroin appears higher than the past 12 months prevalence. This is due to the 5-year gap in base years.]

---

---

## SPAIN

---

---

Data on drug abuse in Spain are gathered primarily by the State Information System on Drug Abuse. This system was put into operation in 1987 and consists of three indicators: (1) treatment, (2) emergency room data, and (3) mortality statistics. The system provides wide coverage of 224 centers in the 17 autonomous communities of Spain.

Cannabis remains the most widely used drug in Spain. Regional surveys have reported use of cannabis (mainly hashish), ranging from 3.2 percent in Casatuna (1990) to 11.5 percent in Trabajadores (1986). The Community Epidemiology Work Group (CEWG) reports a steady decrease in cannabis use over the past decade.

Use of cocaine has been higher than use of heroin for many years. There has been an increase in the number of heroin addicts reporting cocaine use, however. Cocaine use among heroin addicts increased from 44 percent in 1987 to 51 percent in 1991.

In 1987, 9,727 treatment admissions for opiates and cocaine were reported by the CEWG. Of these, 97 percent involved heroin use; 1 percent involved cocaine use; 0.7 percent involved other opiates; and 0.4 percent involved methadone. Additionally, a total of 1,851 emergency room cases were reported for opiate and cocaine use by 29 hospitals in 7 autonomous regions. The number of persons seeking treatment for cocaine abuse since 1987 has increased by 525 percent, from 188 to 989; the number of persons seeking treatment for heroin has increased by 320 percent.

### SOURCE

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1992. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1992*. Washington, DC: Government Printing Office.

## International Drug Consumption Estimates

### SPAIN

Population Estimate (1990): 39,269,000

Drug Type	National Data				Local Data				Youth Data <sup>1</sup>				Treatment Data <sup>2</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence	1984 <sup>3</sup>			1.4	Madrid/1989 <sup>3,4</sup> Galicia/1988 <sup>5,6</sup>		1.7	0.9 1.5	1988	1.1				16,981 <sup>7</sup> 11,737 <sup>8</sup>
User estimate	1986 <sup>3</sup> 1988 <sup>3</sup>	868,600	39,879		Galicia/1988 <sup>5,6</sup>		34,000	30,000						
Heroin Prevalence	1984 <sup>3</sup>			0.9	Madrid/1989 <sup>3,4</sup> Galicia/1988 <sup>5,6</sup>		1.0	0.2 0.9	1988	0.0				
User estimate	1990 1988 <sup>3</sup>		150,000	57,288	Galicia/1988 <sup>3,4</sup>		20,000	18,000						
Cannabis Prevalence	1984 <sup>3</sup>			12.2	Madrid/1989 <sup>3,4</sup> Galicia/1988 <sup>5,6</sup>		5.6	3.5 5.0	1988	11.8				
User estimate	1990 1988 <sup>3</sup>		700,000	78,694	Galicia/1988 <sup>5,6</sup>		112,000	100,000						

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: National Institute on Drug Abuse. 1988. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1988*. Washington, DC: U.S. Government Printing Office. [Note: Data from a survey of changes in attitudes toward drugs (n=726 students, ages 12-18 years in cities and suburbs).]

<sup>2</sup> Source: National Institute on Drug Abuse. 1989. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1989*. Washington, DC: U.S. Government Printing Office. [Note: Treatment data includes treatment for all drugs.]

<sup>3</sup> Sanchez, J., et al. 1991. *Revista de Sanidad e Higiene Publica* 65:395-412. [Note: Based on 1984 survey (n=5,958, ages 12 and up).]

<sup>4</sup> Based on 1989 survey in municipality of Madrid (n=8,002, ages 16-64 years).

<sup>5</sup> Source: Council of Europe. 1991. *Drug Indicators in Barcelona, 1989-1990*. Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs. [Note: The population of Barcelona was estimated at 1,707,000.]

<sup>6</sup> Galicia is a province in Spain. Data in Spain are reported from provinces rather than cities.

<sup>7</sup> Drug of initiation for treatment figures is based on treatment admissions.

<sup>8</sup> Drug of initiation for treatment figures is based on hospital emergency data.

<sup>9</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

---

---

## SWEDEN

---

---

Cannabis is reported to be the most commonly abused drug in Sweden for "casual" as well as experimental use. Abuse of cocaine is believed to be limited within certain population groups and concentrated in urban areas. Use of heroin is reported to be minimal among native Swedes. Immigrants are believed to be the primary abusers of heroin. Growing drug problems in Sweden are the use of LSD and MDMA, or "Ecstasy." Central nervous system stimulants are reported to be the preferred drugs among heavy drug users.

Data collection efforts in Sweden include a series of student surveys conducted in the city of Stockholm every third year since the late 1960's. Students in grade 9 (15 years old) are surveyed on lifetime drug use. Data reported through 1987 showed that 9 percent of the students had used drugs at some time in their lives. This figure indicated a significant decrease from findings of 12 percent in 1984 and 22 percent in 1981. Cannabis use is reported to follow the same trend.

A study of 18 year olds in military service in the Greater Stockholm area reported lifetime use of any drug at a rate of 15 percent in 1986, 12 percent in 1987, and 13 percent in 1988. Reported use of drugs in the past month varied between 1 and 2 percent.

The Commission on the Extent of Drug Abuse conducted an investigation of the heavy drug use situation in Sweden in 1979 and 1984. Data collected in that investigation were derived from the following sources: case-finding studies, drug seizures, arrests and convictions for drug-related offenses, drug abusers within the correctional system, and patients discharged from inpatient psychiatric care who had a diagnosis of drug dependence.

Conclusions drawn by the Pompidou Group in its 1990 update report on Stockholm indicate an increase in cannabis use among teenagers through age 30; an increase in amphetamine and cocaine use in the 18 to 40 age group; and an increase in the use of heroin among immigrants and their children.

Sweden's drug laws allow drug abusers to be forcibly committed for treatment on the grounds of "serious abuse." The maximum period of care for cocaine abusers is 6 months. The Pompidou Group reports that approximately 400 drug abusers were committed for compulsory care in 1990. Treatment centers offering voluntary care to drug abusers have a reported capacity of about 1,200.

The primary substance of abuse reported by patients treated in one facility, the unit of Danderyd, from 1984 to 1988, was amphetamines. Heroin was the second most common drug for which abusers sought treatment, followed by cannabis, and other drugs/combinations. Treatment for use of cocaine was not requested until 1988, when six cocaine abusers presented for treatment.

## SOURCE

Centralförbundet för Alkohol-och Narkotikaupplysning. 1991. *Report 91: Trends in Alcohol and Drug Use in Sweden, 1991*. Stockholm, Sweden: Centralförbundet för Alkohol-och Narkotikaupplysning.

## International Drug Consumption Estimates SWEDEN

Population Estimate (1990): 8,526,000

Drug Type	National Data				Local Data				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate														
Heroin Prevalence User estimate	1990 <sup>3</sup> 1979 <sup>3</sup>	7,500- 10,000	1,250										1,654 <sup>1</sup>	
Cannabis Prevalence User estimate	1979 <sup>3,4</sup>	10,000- 14,000												

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Olsson, B. 1991. *Report on Drug Misuse in Stockholm Updated to 1990*. Strasbourg, France: Council of Europe, Cooperation Group to Combat Drug Abuse and Illicit Trafficking in Drugs (Pompidou Group). [Note: Number represents drug abusers in contact with social services in the city of Stockholm only.]

<sup>3</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate: Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

<sup>4</sup> Source: Report 91: Trends in Alcohol and Drug Use in Sweden, 1991: Centralförbundet för alkohol-och narkotikaupplysning. Stockholm, Sweden.

<sup>5</sup> This figure represents the total number of all drugs used for the year 1979, not just cannabis. As noted in the table under heroin, 7,500-10,000 of these constitute heroin users. Because cannabis is the most common drug of abuse, the figure for the total has been placed in this category.

---

---

## UNITED KINGDOM

---

---

The 1973 Misuse of Drugs-Notification Act requires medical practitioners to inform the chief medical officer of the Home Office of persons considered or suspected to be addicted to any of 14 controlled drugs, including cocaine, heroin, pallium, dicomal, hydrocodone, hydromorphone, levorphanol, methadone, morphine, opium, oxycodone, pethidine, phenazocine, and piritramide. Renotification is required annually when addicts remain in treatment. The number of addicts notified to the Home Office each year has been reported to be increasing annually by about 18 percent since 1987. The number of heroin addicts renotified to the Home Office is showing signs of leveling off; however, the number of addicts reporting use of cocaine and methadone has risen sharply over the last 5 years. Marijuana, hallucinogens, and synthetics are not monitored under this system.

The notification system is useful for estimating drug use among addict populations, however, it is not an absolute measure. Heroin use is reported to be underestimated by the system due to the clandestine nature of heroin activity. Only addicts who come into contact with medical services are recorded. The Community Epidemiology Work Group (CEWG) reports that the total number of heroin addicts is estimated to be four to eight times the number reported in the notification system.

The Institute for the Study on Drug Dependence (ISDD), Britain's national information and research center on drug abuse, reports that cannabis is the most widely misused drug in the United Kingdom. Review of national surveys has shown consistently that cannabis has been used by virtually all people who have ever used illicit drugs. It is therefore considered that estimates of cannabis use can be used as an indicator of overall drug use. Indicators of cannabis have increased steadily between 1981 and 1991. The number of persons found guilty, cautioned, or dealt with by compounding for use of cannabis increased from 15,388 in 1981 to 42,209 in 1991.

The ISDD reports that second to cannabis use, amphetamine abuse is widespread, especially among youth. Estimates of heroin and other opiate users are primarily based on addicts newly identified to the Home Office. Indicators of heroin use, including seizures and notifications, have shown increasing use from 1981 to 1985 and a moderate decline in use from the 1985 peak until 1991. The number of persons found guilty, cautioned, or dealt with for heroin use peaked at 3,227 in 1985 and decreased to 1,466 in 1991. Heroin is the most commonly reported drug of addiction.

Indicators of cocaine use have steadily increased, from 566 persons found guilty, cautioned, or dealt with for cocaine use in 1981 to 838 in 1991, as reported by ISDD. The CEWG reports that use of crack-cocaine is rising but is not yet a major problem. However, estimates of cocaine use often are underreported since cocaine often is used by persons addicted to other drugs. The CEWG reports that only 37 percent of newly reported cocaine addicts in 1991 were addicted to cocaine alone.

Data collection efforts have included 1982 and 1984 British Crime Surveys, a 1987 Survey of School Children and Drugs by the Health Education Authority's (HEA) Schools Health Education Unit, and an unpublished 1989 student survey by Gallup. Many smaller surveys have been conducted among subpopulations in different geographic areas, treatment

populations, among pregnant users, and in high-risk groups. Official statistics released by the Home Office are most consistent of all data reported and are the statistics most often cited by the United Nations, the CEWG, and other international source documents.

## SOURCES

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1992. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1992*. Washington, DC: Government Printing Office.

Institute for the Study of Drug Dependence. 1991. *Drug Misuse in Britain: National Audit of Drug Misuse Statistics 1991*. London, United Kingdom: Institute for the Study of Drug Dependence.

*Review of the 1992 International Narcotics Control Strategy Report: Hearings Before the Committee on Foreign Affairs and the Subcommittee on Western Hemisphere Affairs*. 1992. House of Representatives, 102nd Congress, 2nd Session, March 3, 4, 11, and 12, 1992. Washington, DC: Government Printing Office.

## International Drug Consumption Estimates

### UNITED KINGDOM

Population Estimate (1990): 57,366,000

Drug Type	National Data				Local Data				Youth Data <sup>1</sup>				Treatment Data <sup>2</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Population	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence User estimate	1989 <sup>1,3</sup>	2.0-3.0							1989 <sup>4</sup>	3.0			1,085 <sup>4</sup> (1990)	
Heroin Prevalence User estimate	1990 <sup>5</sup>	50,740							1989 <sup>4</sup>	1.0			14,497 (1992)	
Cannabis Prevalence User estimate	1982 <sup>1,7</sup> 1984 <sup>1,7</sup> 1984 <sup>1,7</sup>	5.0 1.3 million	2.9						1989 <sup>4</sup>	30.0				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: *Drug Misuse in Britain: National Audit of Drug Misuse Statistics*. 1991. London, U.K.: Institute for the Study of Drug Dependence (ISDD).

<sup>2</sup> Source: Power, R. 1991. "Drug Trends in Britain and the Place of Action Research." Presented at CEWG meeting, Miami, December 11-13, 1991. United Nations Economic and Social Council, Commission on Narcotic Drugs, Thirty-fifth Session, Vienna, April 6-15, 1992. *Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*.

<sup>3</sup> Note: Based on 1989 R.B.L. op cit survey.

<sup>4</sup> Based on 1989 R.B.L. Anti-misuse of drugs campaign evaluation, respondents ages 19-20 years.

<sup>5</sup> In 1990 the total number of addicts was 17,755 in all of the U.K. (not broken down by drug). It has been estimated that the number of heroin addicts is 4 to 8 times the number reported.

<sup>6</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate: Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

<sup>7</sup> Based on 1982 and 1984 British Crime Surveys.

---

---

**NORTH AMERICA**

---

---

---

---

## CANADA

---

---

Illicit drug activity in Canada is primarily limited to "drug use," although U.S. and Canadian authorities have noted an increase in the use of Canada as a trans-shipment point for the smuggling of cocaine into the United States.

In 1987 the Federal provincial and Territorial governments, along with nongovernmental organizations and addiction experts, formulated Canada's Drug Strategy (CDS), which is led by Health and Welfare of Canada. The CDS focuses on education, prevention, and treatment, as well as interdiction and enforcement.

Data collection efforts to support the CDS include the National Alcohol and Other Drug Survey (NADS, 1989); a World Health Organization collaborative study on health behaviors of school-aged children (1989-1990); the Ontario Student Drug Use Survey (1987)<sup>2</sup>; the Ontario Adult Alcohol and Other Drugs Use Survey (Gallup Ontario Omnibus Survey, 1987)<sup>3</sup>; the Addiction Research Foundation's Drugs, Youth, and the Street Study (1990); and the University of Toronto's Injection Drug Use Study.

The NADS, the largest of these studies, reports findings from a sample of 11,634 Canadians, ages 15 years and older, from 10 provinces. Excluded from the study are residents of prisons, hospitals and other institutions, and residents of the Yukon and Northwest Territories.

Trend data from 1977 to 1987 show a significant reduction in the prevalence of cannabis use. Among adults reported, cannabis use dropped from 12.4 percent in 1989 to 8.9 percent in 1991. Cocaine and heroin use remains low. Cocaine use peaked in 1985 at almost 6 percent among students, but has declined steadily to 2.4 percent in 1991. Adult cocaine use remains at or below 2 percent. Adult and student use of heroin is reported to be approximately 1 percent; however, among street youth, heroin use was reported to be at 13 percent.

### SOURCES

Bruno, F. 1984. *Combatting Drug Abuse and Related Crime: Comparative Research on the Effectiveness of Socio-Legal Preventive and Control Measures in Different Countries on the Interaction Between Criminal Behavior and Drug Abuse* (Publ. No. 21). United Nations Social Defense Research Institute.

Department of Justice. Drug Enforcement Administration. 1991. *Worldwide Cocaine Situation, 1990*. Washington, DC: Department of Justice, Drug Enforcement Administration.

---

<sup>2</sup>Conducted in 1968 and every two years since 1977.

<sup>3</sup>Conducted about every three years since 1976.

Eliany, M., Giesbrecht, N., Nelson, M., Wellman, B., and Wartley, S., eds. 1990. *Health and Welfare Canada, National Alcohol and Other Drugs Survey 1989: Highlights Report*. Ottawa, Canada: Minister of Supply and Services.

Smart, R.G., and Adlaf, E.M. 1990. "Drug Use in Ontario, Canada." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates CANADA

Population Estimate (1990): 26,538,000

Drug Type	National Data <sup>1</sup>				Local Data <sup>2,3</sup>				Youth Data				Treatment Data <sup>4</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence	1989	3.5	1.4		Toronto/1991 Ontario/1987	6.1	2.2 1.8		Toronto <sup>5</sup> /1991 NADS <sup>6</sup> /1989 Ontario <sup>7</sup> /1987	4.9 3.8	2.4 2.5			
User estimate	1989	710,000	284,000											
Heroin <sup>8</sup> Prevalence	1989	4.1	0.4						Toronto <sup>5</sup> /1991 NADS <sup>6</sup> /1989 Ontario <sup>7</sup> /1987	4.6 1.4	1.9 1.6		1,628	
User estimate	1989	832,000	81,000											
Cannabis Prevalence	1989	23.2	6.5		Toronto/1991 Ontario/1987	9.5	6.9		Toronto <sup>5</sup> /1991 NADS <sup>6</sup> /1989 Ontario <sup>7</sup> /1987	33.8 15.9	10.1 15.5			
User estimate	1989	4.70 million	1.32 million											

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Eliany, M., Giesbrecht, N., Nelson, M., Wellman, B., and Wortley, S. (eds). 1990. *Health and Welfare Canada, National Alcohol and Other Drugs Survey 1989: Highlights Report*. Ottawa, Canada: Minister of Supply and Services. [Note: Based on National Alcohol and Other Drugs Survey, 1989 (adult Canadians, ages 15 and up, n=11,634).]

<sup>2</sup> Source: Smart, R.G., and Adlaf, E.M. 1990. "Drug Use in Ontario, Canada." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 27-37.

<sup>3</sup> Based on Ontario Omnibus Survey, 1987, and Toronto subsample of same, 1991.

<sup>4</sup> Source: 1990 *Narcotic, Controlled and Restricted Drug Statistics—Analysis Report*. 1991. Ottawa, Canada: Minister of Supply and Services. [Note: Based on patients receiving methadone maintenance for narcotic addiction on 12/31/90 (point prevalence). This represents an increase of 169 patients over the previous year.]

<sup>5</sup> Source: National Institute on Drug Abuse. 1988. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, June 1992*. Washington, DC: U.S. Government Printing Office, 1988.

<sup>6</sup> Source: Eliany, M., Wortley, S., and Adlaf, E. (eds). 1991. *Alcohol and Other Drug Use by Canadian Youth: A National Alcohol and Other Drugs Survey (NADS) (1989) Report: Technical Report*. Ottawa, Canada: Minister of Supply and Services. [Note: Based on National Alcohol and Other Drugs Survey 1989 (youth cohort ages 15-24 years).]

<sup>7</sup> Based on Ontario Student Drug Use Survey 1987.

<sup>8</sup> The NADS reports LSD, speed, and heroin as one category.

---

---

## MEXICO

---

---

Marijuana, opium gum, and crude heroin are produced in Mexico. Marijuana is grown throughout the country, and opium poppies are grown mainly on the Pacific Coast. Mexico also is a transit country for U.S.-bound cocaine.

In 1988, the Mexican Health Department conducted a National Addiction Survey, covering 15,000 households in urban areas with persons between the ages of 12 and 65. It was conducted by the Ministry of Health through the Head Offices of Epidemiology and the Mexican Institute of Psychiatry and is currently the main source of drug use statistics for Mexico. This survey identified marijuana as the most commonly used drug, consumed by 3 percent of the adult population. Marijuana was followed by tranquilizers and inhalants, such as glue solvents, as the second and third most common drugs of abuse. Use of inhalants and cocaine is on the rise, while marijuana and psychotropic drug use is reported to be stable. Heroin and cocaine use (0.11 percent and 0.33 percent, respectively) are considered to be a problem only among persons who have lived or worked in the United States. People living in northwestern Mexico are considered to have the highest risk of drug abuse. Mexico City reported a lifetime drug use estimate (for all drugs) of 70.4 percent among adults.

The General Directorate of Epidemiology created the Epidemiologic Surveillance System of Addictions in Mexico in October 1990. Its aim is to implement a system to cover clients in the health system, the legal system, and the general population. Data on drug consumption, arrests, treatment, and mortality will be improved as this system matures.

### SOURCES

*Drug Control in Mexico: A Comprehensive Program 1989-1994. Summary.* 1992. Paseo de la Reforma y Violeta, Mexico: Office of the Attorney General of Mexico, Government of Mexico.

Medina-Mora, M.E., Tapia, C.R., Rascon, M.L., Solache, G., Otero, B.R., Lazcano, F., and Marino, M.C. 1990. "Epidemiologic Status of Drug Abuse in Mexico." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

Ortiz, A. 1990. "Development of a System for Registry of Information on Drug Use in Mexico." In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates

### MEXICO

Population Estimate (1990): 87,870,000

Drug Type	National Data				Local Data <sup>1</sup>				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence	1988 <sup>2</sup>	0.33		0.14	Mexico City/ 1988	4.0		1.8						
User estimate	1989 <sup>2</sup>		88,000	58,000										
Heroin Prevalence	1988 <sup>2</sup>	0.11			Mexico City/ 1988	1.0		1.0						
User estimate	1989 <sup>2</sup>		28,000											
Cannabis Prevalence	1988 <sup>2</sup>	2.99		0.54	Mexico City/ 1988	70.4		50.3						
User estimate	1989 <sup>2</sup>		803,000	129,000										

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Ortiz, A. 1990. "Development of a System for Registry of Information on Drug Use in Mexico." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 60-69. [Note: From System for Registry of Information on Drugs (SRID), June 1988 (n=398).]

<sup>2</sup> Source: National Addiction Survey, 1988.

<sup>3</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

---

---

**OCEANA  
and  
AUSTRALIA**

---

---

---

## AUSTRALIA

---

Cannabis is reported to be the most readily available and most widely used drug of abuse in Australia. Amphetamine use is also widespread. Production of both drugs takes place within Australia, though there is evidence of these drugs being brought in from other countries. Availability of cocaine is considered to be low, primarily because of Australia's distance from major cocaine-producing countries.

Data collection efforts on drug abuse have included (1) a 1988 community prevalence study of adults, ages 15 and older, in households in New South Wales; (2) a study of the drug market position of cocaine among young adults in Sydney; (3) a National Drug and Alcohol Research Centre study on amphetamine use (1992); and (4) a survey of teenage drug use among adolescents in Sydney. Each of these surveys, except the community prevalence study, collected data on current drug users only.

Among adolescent drug users surveyed in Sydney, marijuana is the most commonly used drug, followed by amphetamines and cocaine, with the frequency of use most often reported to be one to three times per month.

Cannabis use among all adults reported in the community prevalence study is estimated to be approximately 11 percent. Amphetamines were reported to be used by 1.7 percent, with all other drug types receiving only minimal reported use (less than 1 percent).

Treatment data were unavailable for Australia.

### SOURCES

Reilly, C.J., and Homel, P.J. 1988. "Teenage Drug Use—A Study of Drug Use Patterns and Attitudes of a Subgroup of Sydney's Adolescents." *Australia Drug and Alcohol Review* 7:167-174.

Directorate of the Drug Offenses, New South Wales. 1988. "Teenage Drug Use—A Study of Drug Use Patterns and Attitudes of a Subgroup of Sydney Adolescents." *Australian Drug and Alcohol Review* 7:167-74.

Hancock, L., et al. 1992. "Drug Use in Australia: A Community Prevalence Study." *The Medical Journal of Australia* 156:759-64.

*International Narcotics Control Strategy Report: Executive Summary, March 1992.* 1992. United States Department of State, Bureau of International Narcotics Matters.

New South Wales Directorate of the Drug Offensive. 1990. "The Drug Market Position of Cocaine Among Young Adults in Sydney." *British Journal of Addiction* 85:891-97.

## International Drug Consumption Estimates AUSTRALIA

Population Estimate (1990): 16,923,000

Drug Type	National Data				Local Data				Youth Data				Treatment Data	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence					Sydney <sup>1</sup> New South Wales <sup>2</sup> : male female	13.0							48.7 <sup>3</sup>	
User estimate							0.6 0.2							
Heroin Prevalence					Sydney <sup>3</sup>	6.0								
User estimate	1987 <sup>3</sup>		100,000	40,000										
Cannabis Prevalence					Sydney <sup>1</sup> New South Wales <sup>2</sup> : male female	59.0								
User estimate							14.3 7.5							

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: Homel, P., et al. 1990. "The Drug Market Position of Cocaine Among Young Adults in Sydney." *British Journal of Addiction* 85:689-87. [Note: Telephone survey of 500 young Sydney adults (ages 14-35) from all areas of Sydney.]

<sup>2</sup> Source: Hancock, L., et al. 1992. "Drug Use in Australia: A Community Prevalence Study." *The Medical Journal of Australia* 156(1):750-764. [Note: Based on 1988 household survey (n=2,623, ages 15 and older in New South Wales).]

<sup>3</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

---

---

## CARIBBEAN

---

---

The islands of the Caribbean included in this report are Honduras, Jamaica, Bahamas, Bermuda, Trinidad/Tobago, and the Virgin Islands.

Jamaica is a marijuana-producing country. However, there are no indications that marijuana is a significant drug of abuse in Jamaica. Two model drug-free youth centers were established with the support of the United States in Kingston and Christina. Attempts are being made to implement drug awareness, education, and prevention programs aimed at high-risk groups, primarily youth between 12 and 25 years of age.

A 1990 prevalence study conducted in the Bahamas found alcohol to be the drug most commonly used, with about 7 out of every 10 adults having consumed it. About 14 percent of adults living in households on New Providence and Grand Bahamas have used marijuana. There has been a low lifetime prevalence of abuse of sedatives, tranquilizers, or stimulants among adults in the general population (3.2 percent). Overall drug use rates appear to be relatively low.

Along with many other countries in the Caribbean, the Bahamas experienced a large increase in drug abuse in the 1980's. Admissions of cocaine abusers into treatment also increased. In response to this problem, the Bahamas Ministry of Health and the Pan American Health Organization's Country Office in Nassau developed a plan to study the nature and extent of drug use and abuse in the country. This plan was supported by the United Nations Fund for Drug Abuse Control. It called for studies of drug use among junior high school students, College of Bahamas students, delinquents in the Boys and Girls Industrial School, and inmates at the Bahamas Government Prison. The studies of youth indicated that alcohol is the most commonly used drug. A 1988 student survey reported 8.2 percent of the 359 students studied had used marijuana, 1.7 percent had used cocaine, and 0.3 percent had used heroin. Most marijuana and tranquilizer users start by the age of 12. It also was found that males in both groups were more likely than females to be users of marijuana and cocaine.

A school survey completed in Trinidad and Tobago (1985) reported that it is the only other Caribbean country that has begun to experience a cocaine epidemic similar to that in the Bahamas. Six percent reported using marijuana and 1 percent reported using cocaine. Cocaine abuse is believed to have caused the sharp increase (580 percent) in addiction treatment between 1983 and 1987.

A 1983 study of drug use among students in Bermuda reported that 15.8 percent had used marijuana in the past year.

No drug abuse statistics were available for Honduras. Users are believed to seek help for their drug addiction from family and close friends rather than professionals.

In the British Virgin Islands, while marijuana was once the drug of choice among residents, now it is reported that users prefer crack-cocaine. In addition, crack-cocaine is the drug most commonly used by persons enrolling in treatment programs. Among the U.S.

Virgin Islands, the island of St. Croix has a heavier concentration of heroin use than St. Thomas and St. John.

## SOURCES

Department of Health and Human Services. Public Health Service. Alcohol, Drug Abuse, and Mental Health Administration. Division of Epidemiology and Prevention Research. National Institute on Drug Abuse. 1992. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1991*. Washington, DC: Government Printing Office.

Smart, R.G., and Patterson, S.D. 1990. *Comparison of Alcohol, Tobacco, and Illicit Drug Use Among Students and Delinquents in the Bahamas*. In *Drug Abuse* (Scientific Publ. No. 522). Washington, DC: Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

## International Drug Consumption Estimates

### CARRIBEAN: Includes Bahamas, Bermuda, British Virgin Islands, and Trinidad/Tobago

Population Estimate (1990): Bahamas (246,000), Bermuda (58,000), British Virgin Islands (12,000), Trinidad/Tobago (1,345,000)

Drug Type	National Data				Local Data				Youth Data				Treatment Data <sup>1</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence  User estimate	Bahamas <sup>2</sup> Bermuda <sup>3</sup> /1985	5.7 1.9	2.4 1.2	1.6 1.0					Bahamas <sup>3</sup> Trinidad <sup>4</sup>	1.7 3.3		1.6	British V.I. 8 (1989)	
Heroin Prevalence  User estimate									Bahamas Trinidad <sup>4</sup> /1985	0.3 0.2				
Cannabis Prevalence  User estimate	Bahamas <sup>2</sup> Bermuda <sup>3</sup> /1985	13.9 25.1	4.7 15.8	3.2 10.6					Bahamas <sup>2</sup> Trinidad <sup>4</sup> /1985 British V.I. <sup>1</sup>	8.2 10.6		4.5 3.0		

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate and Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

<sup>2</sup> Source: National Institute on Drug Abuse. 1992. *Epidemiologic Trends in Drug Abuse: Proceedings, Community Epidemiology Work Group, December 1991*. Washington, DC: U.S. Government Printing Office.

<sup>3</sup> Source: Smart, R.G., and Patterson, S.D. 1990. "Comparison of Alcohol, Tobacco, and Illicit Drug Use Among Students and Delinquents in the Bahamas." In *Drug Abuse*. Scientific Publication No. 522. Washington, DC: Pan American Health Organization, 50-59.

<sup>4</sup> Source: Bernard, L. 1985. *Drug Use Survey Among Young People (Age 14 to 20) in Trinidad and Tobago*. St. Augustine: University of the West Indies. [Note: From survey among young people (ages 14-20) in Trinidad/Tobago (n=3,023).]

---

---

## JAPAN

---

---

Methamphetamine abuse has been the most serious drug abuse problem in Japan for about 2 decades. Second to methamphetamine, cannabis is the most frequently abused drug in Japan. Historically, cocaine has not been abused in Japan. There is no sizable indigenous heroin addict population. Heroin is not believed to be used in Japan but is shipped through Japan primarily to the United States.

Methamphetamine, commonly known as "shabu," is used regularly by an estimated one-half million addicts in Japan, with another 2 million believed to be using it on an occasional basis. In 1989, 16,613 people were arrested for using shabu. Shabu flows into Japan from bootleg labs in Taiwan and Korea.

According to the sources consulted, the tendency to consume heroin, marijuana, and cocaine is essentially an imported phenomenon, resulting from travel by Japanese to foreign countries, especially the United States, and from the influx of affluent young Americans and Europeans into Japan. From Japanese reports, it is the influence of these other societies, rather than inherent tendencies within Japanese society, that is producing this problem for the Japanese.

There is no national prevalence survey conducted in Japan. Government-sponsored polls on the "quality of life" address economic and law enforcement issues. The most frequently cited indicators of drug consumption in Japan are figures derived from arrest records. There was no substantial data found to warrant a table presenting drug consumption estimates in Japan.

### SOURCE

Department of Justice. Drug Enforcement Administration. 1992. *Worldwide Heroin Situation, 1991*. Washington, DC: Department of Justice, Drug Enforcement Administration.

## International Drug Consumption Estimates PHILIPPINES

Population Estimate (1990): 66,117,000

Drug Type	National Data <sup>1</sup>				Local Data				Youth Data <sup>2</sup>				Treatment Data <sup>1</sup>	
	Year	Lifetime use	Past 12 months	Past 30 days	Area/year	Lifetime use	Past 12 months	Past 30 days	Population/year	Lifetime use	Past 12 months	Past 30 days	Total	First admission
Cocaine Prevalence									College/1990	1.5				54 (1990)
User estimate	1990		540	50					H.S./1990	0.4				
Heroin Prevalence									College/1990	0.6				3,741 <sup>3</sup>
User estimate	1990		100	30					H.S./1990	0.3				(1991)
									1990	15,082				
Cannabis Prevalence									College/1990	12.6				1,990
User estimate	1990		14,900	2,290					H.S./1990	3.5				

Population estimates are listed for general comparison only. Population figures may represent different years than the data reported. Prevalence figures are listed as a percentage. The percentage represents the ratio of persons reporting lifetime, annual, and past month drug use in the total survey population. User estimate figures are actual numerical estimates based on the number of persons reporting drug use. This figure is generally adjusted from actual survey findings to apply to the entire population. Total in treatment and First admission figures are generally reported as a numerical estimate, however, percentage figures are listed in parentheses when available.

<sup>1</sup> Source: United Nations Economic and Social Council, Commission on Narcotic Drugs. 1992. *General Debate: Examination of the World Situation With Respect to Drug Abuse, Including the Implementation of the Global Programme of Action: Measures to Control and Reduce Illicit Demand*. Vienna, Austria.

<sup>2</sup> Source: Profile of Drug Abusers by 1991. General Analysis of the 1991 Statistical Report on Center Admissions. The source for these data is an unpublished document submitted to CSR, Incorporated, by the Republic of the Philippines Dangerous Drugs Board, December 1992. [Note: Based on study surveying college and high school students from 1989 to 1991 (n=15,082).]

<sup>3</sup> Source: Ibid. [Note: This number refers to patients admitted for treatment for all drug use, not limited to heroin. These patients were admitted to a combination of 16 residential facilities and 13 outpatient treatment and rehabilitation facilities.]

---

---

## PHILIPPINES

---

---

The Philippines is a marijuana-producing country. In 1991 marijuana remained the leading drug of abuse among adults, due mainly to its availability and lower price compared to other drugs. Methamphetamine hydrochloride ("shabu"), which until 1989 was not listed as one of the 10 most commonly abused drugs, was the second most commonly abused drug in 1990 and 1991 according to the *Profile of Drug Abusers 1991*.

Data on drug use in the Philippines has been based on three primary sources: (1) a 1990 Survey of Prevalence of Drug and Substance Abuse Among Filipino Secondary and College Students was conducted in all 13 regions of the country with a total of 15,082 respondents in high school and the first 2 years of college; (2) the National Household Survey on Drug Abuse (1989) surveyed 2,949 youth and 3,871 parents in the 13 regions of the country to determine attitudes and awareness concerning drug use, the youth's experience with drugs, and parent reactions to use of drugs by the youth; and (3) a 1991 Statistical Report on Center Admissions provided a general analysis of drug abuse treatment. Nationwide estimates reported drug use by college students as follows: marijuana, 12.6 percent; shabu, 4.7 percent; cocaine, 1.5 percent; and heroin, 0.6 percent.

Trend data are available from treatment sources only. Drug patient admissions in 1991 (n=3,741) showed a 14-percent increase of 1990 admissions (n=3,278). The rate of increase has slowed since 1989. Urban areas remain at higher risk for drug abuse with approximately half of all treatment clients living in metropolitan Manila and other urban areas.

### SOURCES

Dangerous Drugs Board. 1991. *General Analysis of 1991 Statistical Report on Center Admissions*. Manila, Philippines: Republic of the Philippines.

Dangerous Drugs Board and the University of the Philippines, College of Public Health. 1990. *Prevalence of Drug and Substance Abuse Among Filipino Secondary and College Students*. Manila, Philippines: Republic of the Philippines.

---

## GLOSSARY

---

<b>Amphetamines</b>	A class of synthetic nervous system stimulants
<b>Analgesics</b>	A class of pain-relieving drugs
<b>Barbiturates</b>	A class of sedatives
<b>Basuca</b>	A term for coca paste
<b>Cannabis</b>	Plant species from which several hallucinogenic substances (cannabinoids) are derived, including marijuana
<b>Coca paste</b>	Crude extract of the coca leaf, smoked in tobacco or cannabis cigarettes (also called cocaine base)
<b>Cocaine</b>	A nervous system stimulant derived from the coca plant
<b>Cocaine base</b>	(See coca paste)
<b>Cocaine Hydrochloride (cocaine HCL)</b>	Water-soluble, powdered form of cocaine that can be injected or inhaled
<b>Crack</b>	A crystal form of cocaine formed by processing cocaine HCL with baking soda and water; the resulting product is smoked (also known as "rock" or alkaloidal cocaine)
<b>Diazepam</b>	A sedative, usually administered in pill form, commonly known as Valium
<b>Ecstasy</b>	(3,4-methylenedioxymethamphetamine—MDMA) A man-made derivative of methamphetamine that produces a relaxed state of consciousness
<b>Free base</b>	A purified, smokable form of cocaine HCL
<b>Hallucinogen</b>	A class of perception-altering drugs that can be taken orally or smoked, including THC, hashish, and LSD
<b>Hashish</b>	A hallucinogen derived from the cannabis plant
<b>Heroin</b>	An injected opiate

<b>Inhalants</b>	A term for a variety of volatile substances that are inhaled to achieve an altered sense of awareness
<b>LSD</b>	Orally administered hallucinogen
<b>MDMA (see Ecstasy)</b>	
<b>Marijuana</b>	A substance derived from the crumbled cured leaves, stems, and flower clusters of <i>Cannabis sativa</i> and ingested through smoking; the most active component is delta-9-tetrahydrocannabinol (THC)
<b>Methadone</b>	A synthetic opiate used to treat narcotic addiction
<b>Methamphetamine</b>	An amphetamine most commonly injected but also smoked in crystal form (known as ice, speed, or crystal meth)
<b>Opiates</b>	A class of substances that act as sedatives and pain relievers; derived from poppies (opium and heroin) or synthetic (methadone), they are generally smoked or injected
<b>Opium</b>	An opiate derived from poppies that acts as a depressant
<b>Opium gum</b>	A chewable form of opium
<b>Shabu</b>	(Methamphetamine hydrochloride) a derivative of methamphetamine that acts as a stimulant
<b>Sedatives</b>	Class of drugs that generally depresses systems and includes barbiturates and benzodiazepines

**OFFICE OF NATIONAL  
DRUG CONTROL POLICY**



***A Plan for Estimating the Number of  
"Hardcore" Drug Users in the United States***

**Executive Office of the President  
Office of National Drug Control Policy  
Barry R. McCaffrey, *Director***

**Fall 1997**

---

## **Clinton Presidential Records Digital Records Marker**

---

This is not a presidential record. This is used as an administrative marker by the William J. Clinton Presidential Library Staff.

This marker identifies the place of a publication.

---

Publications have not been scanned in their entirety for the purpose of digitization. To see the full publication please search online or visit the Clinton Presidential Library's Research Room.

---